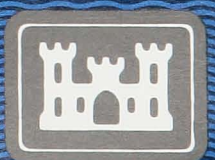


DAMNING THE DAM:

*The St. Louis District
Corps of Engineers
and the controversy over
the Meramec Basin Project
from its inception
to its deauthorization*



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by T. Michael Ruddy

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FOREWORD

The official history of the St. Louis District, Corps of Engineers, notes that "the period after 1960 was a time of marked change in Corps' activities, policies, and priorities." The Meramec Project certainly contributed to this time of change. Although it embroiled the District in an unwanted public controversy, it at the same time underlined the growing importance of environmental issues prompting a serious reassessment of the Corps' civil works priorities. From an historical perspective, this environmental awareness had been an element in Corps planning for a number of years, but the Meramec Project was a notable turning point in the District's adaptation to this changing national priority.

History is not only a record of the past, but also a guide for the future. In this light, *Damning the Dam* recounts a past episode that also has relevance for the present and the future.



James D. Craig
Colonel, U.S. Army
District Engineer

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ACKNOWLEDGEMENTS

When I began research on the Meramec Dam controversy over five years ago, it was still a live issue. It had only been a few years since the people of Missouri had expressed themselves in a non-binding referendum, and the lands that had been acquired for the project were still in the hands of the federal government. Consequently, as I was examining the historical record, ongoing events were determining the final outcome of the project. In a sense, the final chapter was yet to be written. This led my study to continually grow and expand beyond the scope I originally envisioned.

Now that the last chapter has been written, I would like to thank all of those who have helped in making this history possible. A number of people at the libraries and archives I used were invaluable in locating records and other source materials. These included Hazel Schatzmeyer, librarian for the St. Louis District, and John Waide, librarian for the St. Louis University Libraries. Allan Perry of the National Archives Depository in Kansas City, Missouri, was especially helpful in identifying materials both in Kansas City and Washington, D. C.

Thanks to all the people in the St. Louis District who contributed in one way or another to making the historical record complete. While it is impossible to name them all individually, two are deserving of particular recognition. Mike Dace, who was personally involved with the Meramec Project, not only volunteered his viewpoints and read the manuscript closely, but he also had the foresight to save a vast collection of records and newspaper clippings that traced the entire project from its historical roots to the 1970's. Without the material, this study would not have been possible. Betty Mentzel, who at the time was with the St. Louis District, patiently spent many hours helping to find, organize, and interpret the complex figures involved in the land acquisition and disposal.

Kathy Hayes , Vivian Arthur, and Jack Rhodes with the St. Louis District and Mike Robinson of the Vicksburg Division Historical Office were involved from beginning to end. They shepherded the work through its various stages to its successful completion. Without their assistance, this book would not have been possible.

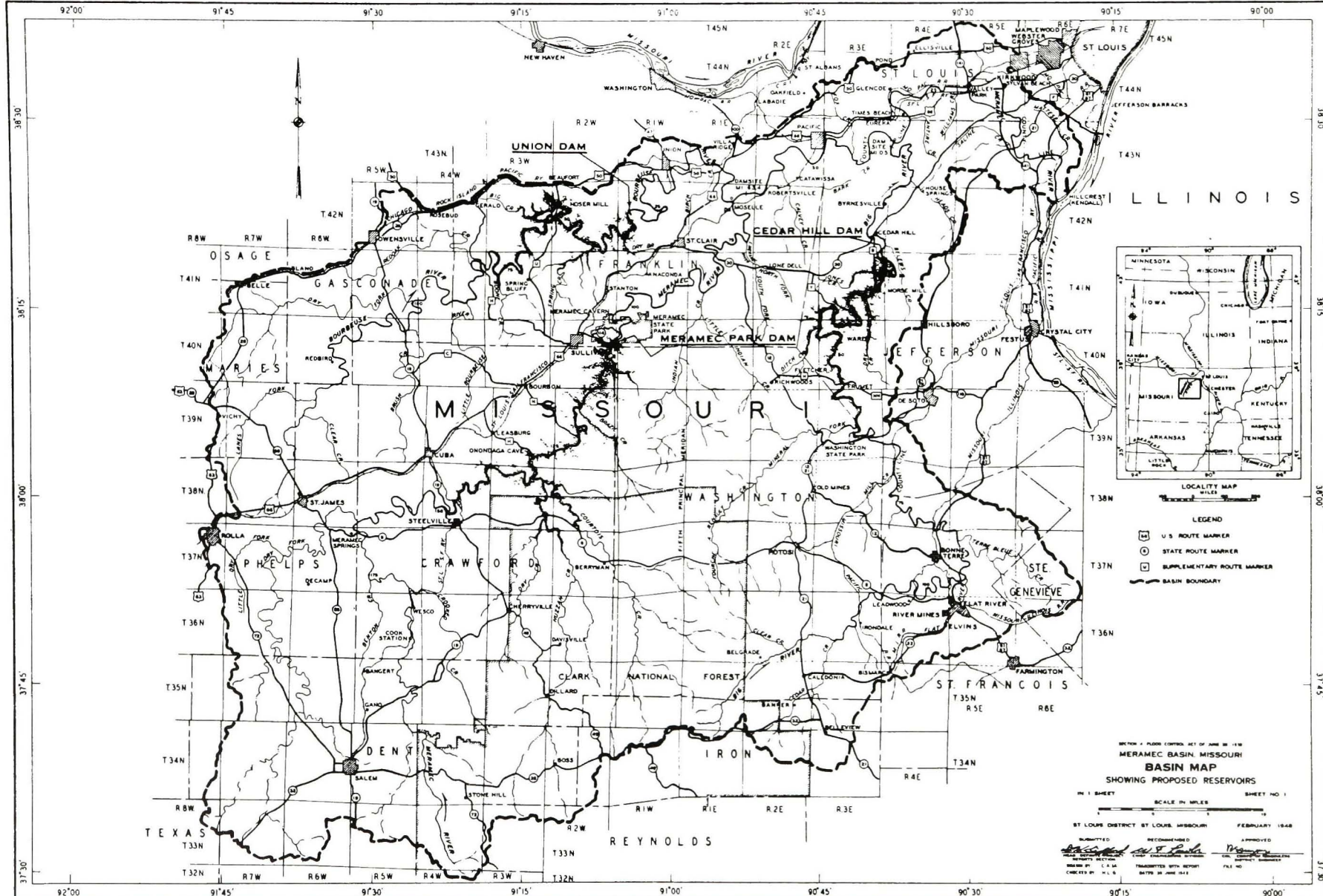
Finally, Kathy Walterscheid's careful editing added a fine finishing touch to the manuscript.

To all of those named and to all of those unnamed who helped in my research, I want to express my thanks.

The Author

T. Michael Ruddy is Professor of History at Saint Louis University. He received his Ph.D. in 1973 from Kent State University where he worked with Lawrence Kaplan. His previous publications include *Cautious Diplomat* (Kent State Press, 1986) and numerous scholarly articles and reviews.

BASIN MAP



Introduction

The Meramec River Basin, including the Bourbeuse and Big Rivers, lies wholly within the state of Missouri and drains 3,952 square miles. It traverses a rural countryside in its upper reaches and meets the Mississippi River near St. Louis, the most densely populated urban area of the state. Although the lower portion of the river has become heavily industrialized and has suffered consequent environmental pollution, the upper part has remained a relatively undeveloped, freeflowing stream that environmentalists have been intent upon preserving. Economically, these rural areas weakened at the same time that the urban areas were growing dramatically. As of the 1960 census, the population of the basin was about 212,000, almost evenly split between those in the rural areas and those in the St. Louis vicinity.

The Meramec River originates in the highlands of the Ozarks, approximately 100 miles southwest of St. Louis, its source being Meramec Springs, near Salem, Missouri. As the Meramec makes its way to the Mississippi River, its basin divides demographically into two distinct parts. Upstream, the river traverses heavily forested, hilly countryside. Its average depth is four feet, with pools as deep as eight feet and sand bars reducing its depth to a few inches. The small parcels of upland property cannot sustain a prosperous agricultural economy, while the rich bottomlands are susceptible to periodic flooding.

The topography of the lower basin consists of a plateau gently sloping to the north and rugged land surfaces to the south. The river valley itself varies from 1/5 to 1-3/4 miles wide as the river passes through the urban areas near St. Louis.¹

In the twentieth century, the Meramec Basin was plagued with problems that regularly brought it to the attention of the state and federal governments. Flooding was a recurring phenomenon that became more costly and drew more attention as the lower reaches of the basin around St. Louis grew and population encroached on the flood plain. This flooding derived primarily from two sources: runoff from the hills and valleys in the upper reaches, and Mississippi backwater in the lower part of the basin.²

Another problem was escalating rural economic stagnation. Once a rich agricultural area, enhanced by thriving timber and mining industries, especially lead mining, by midcentury these pursuits had fallen on hard times. With the declining economic activity the population declined: the

young grew up, were educated, and moved elsewhere in quest of a livelihood. In the depression years of the 1930's, and then beginning again in late 1960's, many of the essential industries that remained were adversely affected by the vicissitudes of the national economy.³

The rural regions proximity to the St. Louis metropolitan area enhanced the attractiveness of the Meramec Basin as a recreation area both before and after World War II. In the opinion of the St. Louis District Engineer in 1931, the Meramec constituted "a valuable and well established playground for pleasure seekers in the vicinity of St. Louis, Mo. and as such has a real value to the public which should be preserved."⁴ Railroads made the area accessible to the urban dwellers beginning in the late 1800's, and its attractiveness to St. Louis residents expanded after World War I. But the depression in the 1930's put a damper on recreational potential, and in the post-World War II years, with the exception of fishermen and canoeists, the region lost the appeal that had predominated in its heyday. By the 1960's, the railroad line that had shuttled vacationers to and from the Meramec no longer ran.⁵ Nevertheless, with the rapid growth of St. Louis, state and local civic leaders recognized that nearby recreational outlets were essential to attract new investment. Once again, their attention turned to the Meramec River. Many rural officials encouraged this trend, seeing in it a vehicle to inject new economic life into their depressed region.



Pleasure Yacht on the Meramec River

(Courtesy of the Missouri Historical Society)

But the push for recreational development aroused environmentalists who saw in the basin some of the few remaining areas of natural beauty in Missouri. They endeavored to stall the intrusion of man and curtail Meramec development. The boost to a sagging rural economy may have meant progress to rural civic leaders, but to the environmentalists, the cost in terms of lost wilderness was too high a price to pay.

Other factors also need to be mentioned when setting the stage for the Meramec controversy. The Meramec has to be evaluated in more than local and state terms, for it influenced and was influenced by national developments. Improving the river, for example, could affect not only the Meramec



Meramec Highlands Hotel, September 1894
(Courtesy of the Missouri Historical Society)

Basin, but could affect the Mississippi River into which it flowed. An important consideration, especially in early investigations of river improvements, was how the Meramec might be controlled to lessen the severity of floods in the Mississippi and to augment the water level in the Mississippi to promote barge traffic during periods of low water.



Railroad Depot, Meramec Highlands CA. 1910
(Courtesy of the Missouri Historical Society)

Furthermore, plans for Meramec development ebbed and flowed with the changing interests and concerns of lawmakers in Washington, who controlled funding. The Meramec Basin was the subject of many different studies and resultant plans from the time of the New Deal (and before) to the time of the demise of the Meramec Park Lake Plan in the 1970's.

This study attempts to chronicle the evolution of the Meramec Basin project, which became an issue by the 1960's and 1970's. Its focus is primarily on the activities of the St. Louis District, U.S. Army Corps of Engineers, and the controversy as it pertained to Missouri. National policies and issues will be discussed, but primarily to provide a context for the regional controversy. One could easily expand the focus of this work to a consideration of the legislative fights and disputes at the federal level in Washington; to do this would treat the Meramec as part of overall federal policy and funding procedures. Such an approach might, however, obscure the impact of the controversy on the region that was so directly affected by it.

Notes-Introduction

1. U.S. Army Corps of Engineers, St. Louis District, *The Meramec River Basin, Comprehensive Basin Study: Information Bulletin*, April 1964, p. 2; Edward E. Middleton, "Interagency Coordination: The Evaluation of Comprehensive Integrated Planning in the Army Corps of Engineers," (unpublished Ph.D. dissertation, Indiana University), 1985, pp. 175-76.

2. Middleton, "Interagency Coordination," p. 176.

3. A good discussion of all of the economic factors that affected the Meramec Basin is found in Edward L. Ullman, Ronald R. Boyce, and Donald J. Volk, *The Meramec Basin Water and Economic Development, Report of the Meramec Basin Research Project to the Meramec Basin Corporation. Vol. I: Summary and a Program of Water Development Proposals*, 1962. A more detailed consideration of this study may be found in Chapter 2.

4. George R. Spalding, Upper Mississippi Valley Division Engineer, to Chief of Engineers, Nov. 16, 1931, R.G. 77, Office of Chief of Engineers, Civil Works, 1923-42, Rivers and Harbors File, Meramec River, File 7074, National Archives, Suitland, Maryland.

5. James P. Jackson, *Passages of a Stream: A Chronicle of the Meramec* (Columbia: University of Missouri Press, 1984), pp. 59-68, presents a nostalgic account of the Meramec's recreational boom in the early twentieth century.

1

Chapter 1 The Background

The Meramec River has long been a controversial waterway of concern to the people of Missouri, particularly those residing within its watershed, as well as to many living outside the Meramec Basin. Because the Meramec flows into the Mississippi River, an important national commercial artery, any improvements slated for the Meramec Basin had to be evaluated in part on the basis of how they would affect the Mississippi.

Over the years, the Federal government has assumed primary responsibility for the nation's river systems, including the Meramec. In this capacity, Washington not only has confronted the monumental task of devising programs that balance regional interests with national needs, but it has had to respond to that nebulous concept of public interest in justifying the programs it embarks upon. Public interest is so elusive that one wonders if there really is such a thing, or whether in fact there is only a diversity of special interests that have to be appeased. For every proposal, it seems that there is always a counterproposal that catches the fancy of opposing groups. The majority view does not always rule; rather the most vociferous interest group, whether it be a majority or a minority, often carries the day.

The elusiveness of public interest

The U.S. Army Corps of Engineers acts as an agent of the Federal government. Obviously, its primary function, particularly in the immediate pre- and post-World War II era, was engineering. Unfortunately, the Corps was caught in what might be called a public interest dilemma. In carrying out its duties as mandated by Congress, it often confronted groups with competing ideas about the use of limited resources. Despite efforts to objectively evaluate its engineering decisions, the Corps became embroiled in controversy that had ramifications far exceeding any engineering calculations. The Meramec project stands as an example of this. Often the Corps, in this case the St. Louis District, found itself in a vulnerable position, defending a policy it might have believed justified, but being buffeted by public criticism with the outcome more by politics than an objective evaluation of the situation.

A relatively obscure river in the national context, the Meramec assumed importance because its ebb and flow affected many Missourians, because it flowed into the Mississippi River, and because interest in its control concerned government agencies at all levels. In a sense, the background and evolution of the Meramec project was a microcosm of the whole government planning process.



**Meramec River Flood, Valley Park, Mo.
August 22, 1915**

(Courtesy of the Missouri Historical Society)

The Meramec controversy is of recent origin, but the roots of interest in and planning for the river stretch back to the late nineteenth century. As the post-civil war economy flourished, river navigation received renewed attention. This was true of the Meramec, as well as of other river basins. Leaders of mining and timber industries pondered the advantages of developing the Meramec's navigational capacity. Under these circumstances, complying with the Rivers and Harbor Act of June 14, 1880, the Corps of Engineers prepared a report on the Meramec, from its mouth to a point opposite the Meramec Ironworks near Steelville, Missouri. Navigation was the principle concern; they concluded that the Meramec was unsuitable for navigation and that no feasible improvements could adapt it to commerce. The summary of findings stated that the Meramec: not a navigable river "in fact"; that it was not capable of improvements either to make its navigation "safe and convenient for the naval and commercial vessels of the United States" or to "adapt it to the commerce of the country through which it flows"; but that the lower 21 miles, under the influence of Mississippi River backwater, was possibly "an exception to this rule."¹

Subsequent investigations of the potential for water power production, which could benefit the rural communities particularly, reached similar negative conclusions. In 1906, 1915, 1922, and 1927, studies determined that returns on investment to create water power would not justify the expenditure for development. Transmission losses, such as the voltage drop in current during transport of power over distances, contributed to water power's questionable benefits.² Like the advocates of navigation, proponents of water power failed to spark a strong public response.

At this time there was relatively little concentrated enthusiasm for river improvements on the Meramec, at least not enough to seriously challenge the negative conclusions of these studies. Some business interests would have benefited from improving Meramec navigation; and

various small communities could take advantage of hydroelectric power. But neither of these benefits proved a catalyst to inspire strong public support.

In the case of the Meramec Basin, only the devastation of floods could evoke a significant public outcry. Meramec floods, often accompanying Mississippi River floods, had been a recurring problem throughout the nineteenth century, especially as communities sprouted up throughout the basin. In the early twentieth century, with the development particularly along the river's lower reaches, the problem became notably acute. A late August flood in 1915 was blamed for an estimated 12 deaths. Thousands were left homeless. In Valley Park, 2000 citizens were left without shelter.³

Flooding is a recurring
basin problem

The Meramec Basin attracted relatively little national attention until the devastating 1927 flood, which inundated extensive areas along the Mississippi River and many of its tributaries, triggering the realization that more had to be done to address the need for flood control. Until this flood, levees had been the prevailing type of flood control along the Mississippi. In 1927, these levees proved ineffective. In seven states along the Mississippi, 16,570,627 acres of land were flooded, resulting in \$102,562,393 in crop losses. An estimated 250 to 500 people lost their lives; total financial losses approached \$364,000,000.⁴

This disaster prompted a change in the role of the Corps of Engineers on the Mississippi. Before 1928, authority for navigation and flood control had been divided between the Corps of Engineers and the Mississippi River Commission, which had originally been created in 1879 to improve navigation on the lower Mississippi River. The Commission's scope expanded over the years to include planning for the whole river and flood prevention. Its seven member panel consisted of three members from the Corps of Engineers, three civilians, and one representative from the Coast and Geodesic Survey. One Corps representative served as



**Meramec River Flood, Valley Park, Mo.
August 22, 1915**

(Courtesy of the Missouri Historical Society)

president. This panel had concurred with the long-established Corps advocacy of a "levees only" policy, a policy that was partially blamed for the devastating impact of the 1927 flood, since many of these levees had been overtopped or had to be intentionally breached. The credibility of "levees only" was challenged following the floods, and the Corps began to seriously consider other flood control methods. Congress in 1928, furthermore, authorized the Corps to provide all water resource development of the lower Mississippi and relegated the Mississippi River Commission to a consultative and advisory role.⁵

When Congress clarified the Corps' authority, it gave the Corps what amounted to a legislative mandate. In April 1926, the Secretary of War responded to a Congressional request for cost estimates to perform comprehensive, multipurpose river surveys of 200 of the nation's rivers. The Secretary's proposal, published as *House Document No. 308*, received authorization in the Rivers and Harbor Act enacted into law on January 21, 1927. The reports, mandated by this legislation, were known as "308 Reports." The first multipurpose study of the Meramec River was conducted in compliance with this legislation and under the provisions of Section 10 of the Flood Control Act approved by Congress on May 15, 1928.⁶

The "308 Report" for the Meramec was submitted by the St. Louis District Engineer to the Chief of Engineers on April 1, 1929. It encompassed the Big and Bourbeuse Rivers, along with the Meramec, and was cautious in its assessment of the need for resource development. The Corps primarily investigated the problem of flood control, both as it pertained to local needs and to the Mississippi River, but it also examined water power potential and navigation. It reached the conclusion that to "control excessive flowage", a dam with a reservoir was preferable to levee improvements because it was the most cost-efficient method of flood control. More specifically, the report stated that the "best practicable coordinated plan of improvement", in the Meramec Basin was a single earth dam at Mile 63.4 on the Meramec River, 1.4 miles below the Bourbeuse River. It considered this dam primarily intended for bankfull flood control and power, and only to a lesser extent for Mississippi River flood control.

An early multipurpose
study of Meramec River

The Corps reached these conclusions after considering alternative methods of flood control, including channel improvements, levees, passes, and regulation of stream flow. Levees and channel improvements had many advocates, but these solutions were eliminated because of the "flashy nature of the stream," the fluctuation in stage, the narrowness of the valley, and the hard digging required in the channel for cutoffs and bypasses. Furthermore, focusing on the use of dams, the report compared the benefits of a three, two, and one dam system, settling on the single dam "solely on a comparative cost basis."

Although in the report the Corps discussed this plan of action, it was rather skeptical that any Meramec project was really economically sound at that time. Comparing both the local and the general benefits to be derived, the Corps estimated that the cost of the most feasible coordinated project would be 92 percent greater than all probable benefits.

The lack of cost effectiveness was made more ominous by skepticism about some of the purposes for which the project was intended. There was no real demand for navigation on the Meramec. Local flood control was only important on the lower 30 miles of the river. Even there, local officials did not express great interest and seemed reluctant to seize the initiative. Because of the availability of cheap Illinois bituminous coal, water power was not a priority, and there was little indication things would change in the near future. Finally, such factors as drainage, recreation, and water supply were not primary considerations in determining a plan for the river, since Congress had not yet authorized them as legitimate areas for Federal concern.

Hence, in the report, the District recommended against any detailed survey or project study. However, it did leave open possible future action. When flood damages, as well as the value of property and other interests along the lower 30 miles of the river increased, and when the potential value of water power grew, there would be a place for such a project. But as the District Engineer remarked, at the time this "seem[ed] very remote." The Corps' legal responsibility, he noted, further negated development of the Meramec. By law, the Corps had no authority to make a project study of the Meramec solely for local flood control and development, and only Congress could delegate that authority.⁷

The cautious conclusions of the report reflected the tenor of the times in which it was written. Until the October 1929 stock market crash, the decade was a period of prosperity and "normalcy." A laissez-faire attitude prevailed, and expanding the role of government seemed furthest from the minds of most Americans. Despite this attitude, Congress was moderately forthcoming with appropriations for river improvements. Not only were efforts made to assess potential measures to alleviate flooding, but appropriations to complete regulation work on the middle Mississippi were provided with greater regularity from 1924. Fifty-seven percent of this work was completed by 1930.⁸

The Depression, which gripped the nation at the end of 1929, gave impetus to the push for river projects. This economic crisis and the apparent inability of President Herbert Hoover's administration to cope with the problem ushered in Franklin D. Roosevelt and his New Deal in the 1932 election. Faced with a major crisis, the new president acted quickly to alleviate the situation. His solutions tended toward experimentation and expansion of the role of the Federal government as an active facilitator to get the country moving again. In the minds of New Dealers, government activity would prime the pump of the economy and government programs would provide jobs for the unemployed. The cautious outlook and limited view of government, so prominent throughout the 1920's, was changing.

In the midst of this New Deal activism, the St. Louis District once again addressed the question of the Meramec. This time, the groundwork was laid for a long-range examination and plan for that river. In 1934, Congress requested a comprehensive plan for river development, a prelude to the 1936 Flood Control Act. The St. Louis District prepared cost estimates for surveys on the Meramec, Kaskaskia, and Big Muddy

Rivers.⁹ At this time too, high water in the Meramec Valley between March 12 and July 1, 1935, underlined the need for action. The area engineer in charge of the Meramec Valley estimated damages to crops, roads, business, and other facilities at \$163,000. He was understandably concerned about potential damage if a devastating flood were to occur. "If a flood equal to that of 1915 should reoccur," he warned, "there would be considerably greater damage done in the Valley as this area has been greatly developed along recreational lines during the last twenty years."¹⁰ Here was a major reason for a renewed interest in the Meramec. The 1929 report had professed two reasons for rejecting development of the Meramec—cost effectiveness and lack of local interest, the result of what had been judged minimal development in the valley. Now it seemed to some that the valley was becoming sufficiently developed that flood control measures merited reconsideration. Floods were becoming increasingly costly.

In addition, a local grassroots movement began to lobby for Meramec development. In 1933, about 50 interested St. Louis citizens organized the Lake Meramec Association. This group proposed that the Public Works Administration, one of the New Deal agencies, undertake the construction of a Meramec Lake funded by the Federal government. The group advocated a \$5 million earthen dam to create a lake about a mile from the mouth of the Meramec. They perceived its primary purpose as recreation for the St. Louis area (a purpose that would assume predominance later). The St. Louis District, while aware of the growing interest in Meramec development, saw little value in the association's particular proposal. The District questioned the feasibility of an earthen dam and found little or no flood control, navigation, or hydropower benefits deriving from such a lake.¹¹ Nevertheless, the Meramec was surfacing as a public concern.

Parallel with this activity, related legislation worked its way through Congress. The Flood Control Act of 1936 inaugurated a national flood control program and assigned authority for flood control investigations and improvements to the Corps. It authorized a number of reservoir projects, as well as preliminary investigations and surveys. Legislators hoped this would lead to some large, coordinated basin-wide flood control plans. In passing this legislation, Congress, in part, was accepting the proposition that upstream water retention had been hampered by expanded farming, reduction in forests, and movement into the flood plain. Although doubts lingered about the effectiveness of a single tributary reservoir in measurably reducing flood levels in large basins such as the Mississippi, the legislators believed that the aggregate effect of numerous reservoirs would significantly reduce flood potential.¹²

Following from this 1936 effort, dams on the Meramec and Bourbeuse Rivers were included in a comprehensive plan for the upper Mississippi River in the Flood Control Act of 1938. So important was this piece of legislation for the St. Louis District that its District history has referred to it as a "landmark piece of legislation," a description prompted by the fact that the potential reservoirs to be studied under provisions of this legislation included the Meramec, the Big River, the

1938 Flood Control Act:
"Landmark" legislation

Carlyle (Kaskaskia River), and the Joanna (Salt River). Detailed studies were prepared, although none of these projects would commence for two decades.¹³

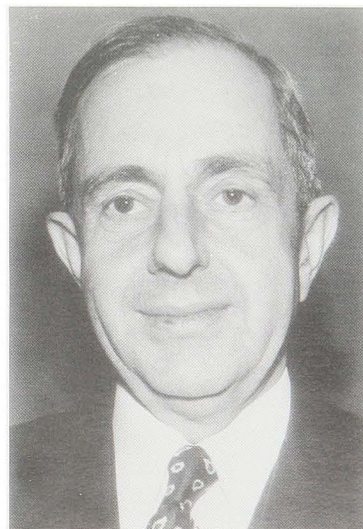
The authorization for these reservoirs in the Meramec Basin stimulated some adverse reactions. Some residents of the basin expressed their concern that reservoirs would be injurious to some of the most fertile lands. Others worried about the impact on game-fish breeding and recreational streams. Still others simply felt there was no need for such a project.¹⁴ These seeds of opposition would grow in future years.

This mandate, the first serious effort to develop a comprehensive plan for flood control in the Meramec River Basin, was initiated. The plan was an ambitious endeavor to combine both local and general flood control measures with other improvements affecting the basin — navigation, conservation, hydroelectric power, and recreation, among others. National and state agencies, as well as local interests, participated in the planning process.

The National Resources Planning Board accepted responsibility for coordinating this mandate. Originally established by Executive Order in 1935 as the National Resources Committee, this board was entrusted with preparing long-range plans for the development of national resources and the stabilization of employment during the Depression. The Roosevelt administration perceived it as a vehicle to coordinate planning at the state and Federal levels, preventing the overlapping of responsibilities. In the case of the Meramec Basin, the Corps study, already mandated by the 1936 and 1938 Flood Control Acts, was coordinated with studies of various regional needs by other governmental agencies. All the studies proceeded semi-independently, but all shared information with the others.¹⁵

Meramec Cooperative Investigation

In December 1942, the National Resources Planning Board set up a Field Committee for the Meramec Cooperative Investigation, composed of representatives from both state and Federal agencies. W.W. Horner, a consulting engineer from St. Louis, was named consultant and coordinator for this study. He also served as chairman of the field committee. In the early part of 1943, the National Resources Planning Board was abolished as part of the governmental reorganization necessitated by World War II, and Horner's authority was formally terminated. But, acceding to the wishes of participating agencies, he unofficially continued to serve in his designated capacity, and the study slowly evolved.



W.W. Horner

(From the Collection of The
Mercantile Library Assoc.)

In addition to the Corps of Engineers, Horner coordinated the efforts of the Departments of Agriculture and Interior and the Federal Power Commission. On his own initiative, he drew state agencies concerned with water development into the planning process. At first,

Missouri was represented by the Missouri State Planning Board. But later, state representation expanded to include the Missouri Conservation Commission, the State Board of Health, and the Missouri State College of Agriculture.¹⁶

The study that Horner orchestrated was a unique experiment in cooperative planning. This partially explains its ultimate failure. The National Resources Planning Board had originally designated the Meramec and the drainage basins in California and New England as test cases, intending to examine the feasibility of state and local cooperation for basin planning of water conservation and control. The New England group was never organized, and the California group never completed its work. Horner could, therefore, justifiably claim that his committee was the sole "guinea pig."¹⁷

The outbreak of World War II doomed the California and New England experiments and delayed progress in the Meramec Basin. The Meramec Field Committee was organized in early 1943 and met for the first time that May. Members decided that three field investigations would be most appropriate and that water resources could not realistically be isolated from other natural resource concerns in the basin. Therefore, the committee decided to look more broadly at natural resources with an emphasis on water resources.¹⁸ In three authorized field investigations the committee examined alternative suggestions for flood control that would benefit the valley in diverse ways. The economic factor of cost versus benefit played an integral part in the evaluation of each of these investigations.

In the first investigation, the committee pursued a resurvey of land use in the basin and the development of a program for land management. It sought to determine how a comprehensive program of land management would reduce flood flows, soil erosion, and siltation. In the second, the committee focused on wildlife conservation. It considered a proposed system of small head-water reservoirs intended to combine the interests of fish, wildlife, and recreation with a reduction of flood flows and silt. In the final investigation, the committee directly concerned the Corps of Engineers — the study of detention reservoirs on the lower reaches of tributaries and main streams in the basin to reduce the frequency and magnitude of floods. Although Congress had already approved two reservoirs, the District Engineer was empowered to expand his study, ultimately leading to a recommendation for three reservoirs: on the Bourbeuse River near Union, Missouri; on the Meramec near the upper edge of Meramec State Park; and on the Big River near Cedar Hill.¹⁹

Eight subreports on related topics were also generated. Most notable of these was an examination of recreational opportunities, a subject that would later assume major importance. Investigators had some difficulty evaluating this element. They knew, for example, that recreation had a role in planning for the region, but they had difficulty assigning a clear value to it in terms of dollars. They were dealing with a relatively new area of study. After exploring existing precedents, Hugh Denney, a committee member from the Missouri Department

of Resources and Development, noted that Meramec planners divided into three distinct groups on the issue of evaluating recreation: "Those who would place a value on leisure time, and use this along with the cost of securing recreation as a minimum value of recreation"; those who insisted that recreation defied economic measurement and thus required a different basis for justification; and those who agreed with the second group, but were willing to set "arbitrary values" on recreation for the purpose of completing the study. After extensive analysis and deliberation, the cooperative committee finally decided to use the figure of \$1 per full day in assessing the value of recreation.²⁰

As work on each of the investigations progressed, a committee was established in January 1945 to draft the final report. This committee was chaired by Howard L. Cook, an official for the Soil Conservation Service of the U.S. Department of Agriculture. Still, it was not until June 1947 that all of the field investigations were completed and ready to be incorporated into the final report.²¹

Cooperative Basin Plan
hindered by opposition

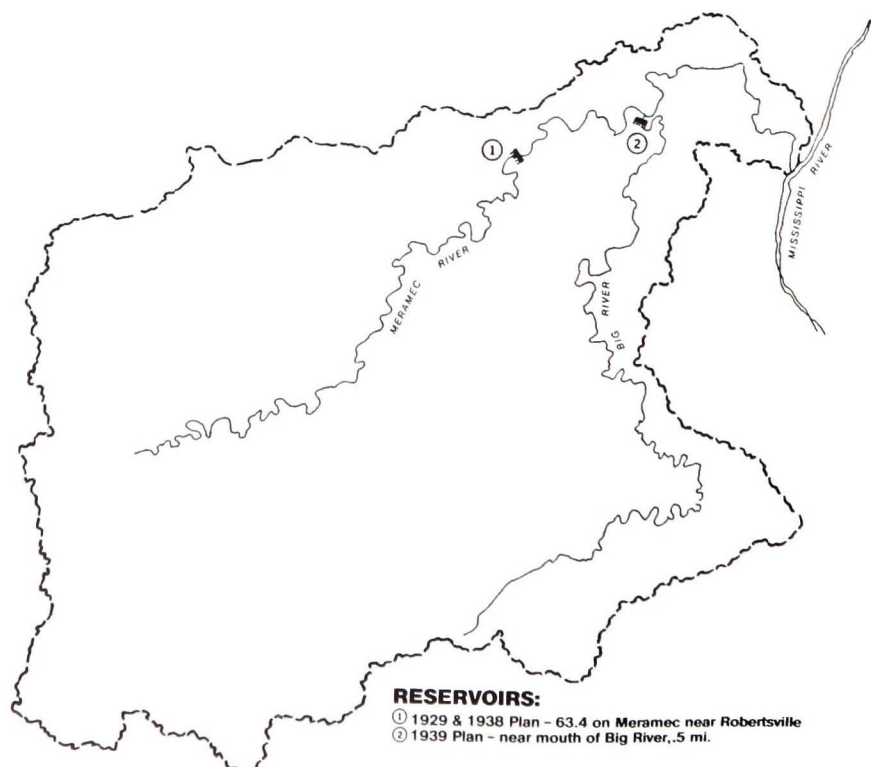
Despite the cooperative effort, the field committee's plan stimulated significant opposition. In fact, indications of impending disagreement surfaced in the report itself. Two crucial features of the study, which limited the scope of the committee's mandate, contributed to this. First of all, in 1938 Congress had already authorized the construction of two reservoirs in the Meramec Basin. Thus, as Horner remarked in his introduction, "the report of the Committee sets out clearly a desirable plan of resource development for the Meramec Basin on the assumption that the large reservoirs, as authorized by Congress, are to be built." The Corps had the authority to modify the reservoir plan, but not to scrap it. The field committee felt restrained from opposing this decision.²²

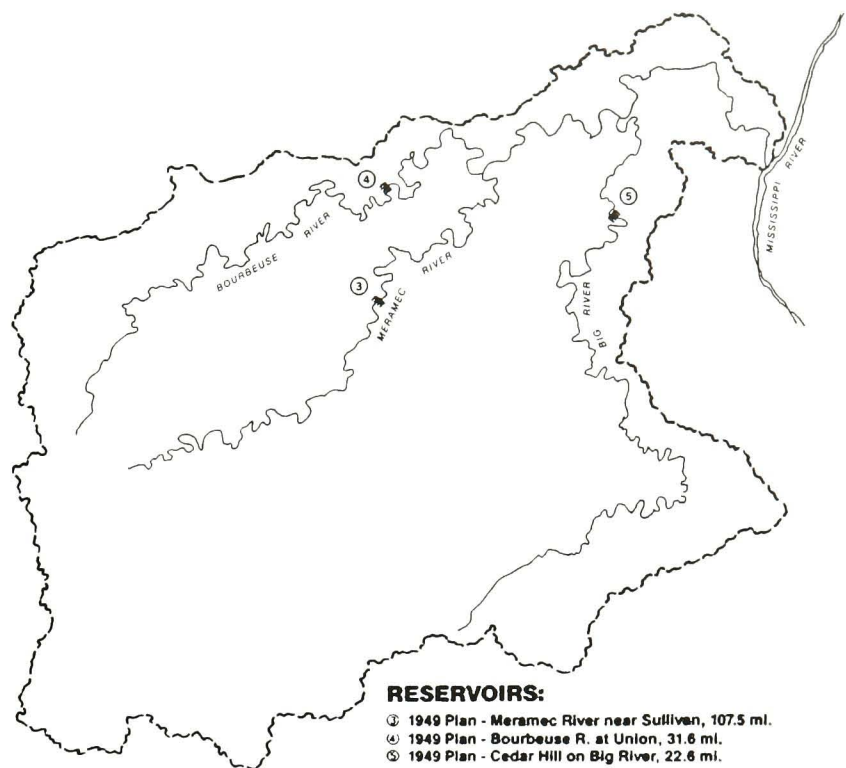
In his introductory remarks, Horner diplomatically acknowledged a serious disagreement among those cooperating in the study. Many committee members felt constrained by the mainstream reservoirs, feeling that these structures were not in the best interest of the basin and that there were alternatives which could more effectively and economically fulfill the purposes for which planners were striving. The Missouri Conservation Commission was among the most vociferous advocates of this position. A 1948 memorandum revealed this group's misgivings. The group lamented that "too often in plans for river basin development thinking becomes distorted, and proposals for imposing engineering achievements in the form of large dams come to be regarded as the ultimate aim of development in the basin." Unfortunately, the report continued, other developments that might serve the best interest of the basin evolve as mere "adjuncts" to reservoir programs that serve the needs of flood control, power, and navigation. The Missouri Conservation Commission, therefore, prioritized its "desirable programs for the basin" in this order: land development program; small upstream reservoirs; and only third on the list, the three large reservoirs.²³

The second hindrance to the scope of the committee's mandate arose from the fact that the well-being of and benefits for the Meramec Basin could not be considered in isolation. Rather, plans for the basin were inevitably considered as part of a more comprehensive national plan

for flood control and navigation. Thus, any local benefits that could be derived had to be weighed against the impact on the whole Mississippi River and other waterways. What was best for the Meramec Valley was not necessarily most desirable for the broader national community. For instance, large, deep reservoirs would contribute most to flood reduction potential on the Mississippi River. Not only would these be very expensive, but local people, especially longtime residents of the rural communities, believed such reservoirs would create massive mud flats because of wide fluctuations in river flow. These were not the sort of scenic recreation reservoirs they wanted. Such considerations tainted the ultimate evaluation and may have contributed to its failure to garner support. Only after the report was published and public hearings were held did the Corps fully realize the negative response these factors would generate.

Once again, Horner had seen clearly the evolving tension between the interests of the basin and the broader national interest. He admitted that smaller upstream reservoirs may have been able to abate most flood situations, but he conceded that the mainstream reservoirs were the only alternative for reducing the "rarer and greater floods," particularly those which would have a major impact on the lower part of the Meramec River and on the Mississippi. This dilemma called into question how the interest of the basin should be weighed against the greater national interest. He noted that it was Congress that would have to face the question "whether the greater good were related to carrying out such a best plan in the Meramec Basin without large reservoirs, or whether an overshadowing national interest might not require the building of the reservoirs even at some sacrifice of the best plan for the basin." He acknowledged that this was a moot point since the reservoirs were already authorized, but he understood that at some point these potentially contrasting interests had to be taken into consideration.²⁴





Since the reservoir plan was the basis for the cooperative report, it seems appropriate at this point to consider briefly the Corps of Engineers' plan for multipurpose reservoirs. Originally, the Corps was authorized to prepare a definite project report on reservoirs at Mile 63.4 on the Meramec River and Mile .5 on the Big River. In June 1943, the scope of the Corps' authority was expanded and made more flexible to include alternative or supplemental reservoirs. Final plans mapped out a dam and a reservoir on the Meramec River at Mile 107.5; on the Bourbeuse River near Union, at Mile 31.6; and at Cedar Hill on the Big River, Mile 22.6. St. Louis District planners were confident that these would provide flood control on the lower Meramec and, in conjunction with other projects, would reduce floods and augment water flow on the Mississippi to improve navigation, increase flows in the Meramec in the interest of sanitation and water supply, and provide permanent pools for recreation and fish and wildlife conservation.²⁵

The Corps also tried to anticipate problems that would occur in the construction of such dams. State and local governments would be compensated for loss of property tax revenue by designating 75 percent of the revenues derived from lease of lands in reservoir areas to the state. Land needed for construction of the projects would be purchased at "fair market value."

To further reinforce their appeal, these reservoirs were linked to a potentially expanded economic life for surrounding areas, providing jobs, tourist revenue, and other benefits. Given that these were backward, rural areas, such development was welcomed by many of the natives.²⁶

The reservoirs were the centerpiece of Corps planning. But in its report, the Corps consciously endeavored to reconcile the reservoirs with the total field committee report, a report that raised other possibilities — that some might have perceived as alternatives rather than as complements to the reservoirs — for the region. In Horner's view, the Corps consciously and energetically endeavored to coordinate the reservoir designs as fully as possible with the proposals of the other agencies, trying to create the best conditions for the Meramec Basin.

The field committee, for example, recommended an agricultural program for soil building and management, including the implementation of techniques such as contour plowing to deter erosion. It outlined reforestation projects and promoted extending technical assistance to private landowners so that they could improve their lands. These proposals, it was suggested, would not only improve farm productivity, but would retard the runoff that contributed to the flooding problems experienced in the Meramec Valley.

Those involved in this planning, furthermore, anticipated that the Meramec region would develop once again into the playground for St. Louis, given its proximity and the scarcity of recreation near the city. While the committee acknowledged that private facilities would undoubtedly spring up to accommodate recreational needs, it expressed doubt that private sources alone would be adequate. Thus, it devised a scheme for public facilities at each reservoir, 25 small upland lakes for recreation in addition to the reservoir, and other lesser facilities such as picnic areas throughout the basin. Flood control and navigation was the primary intent of the study in the beginning, but even in this period, recreation grew to be a major consideration.

The committee also proposed a fish and wildlife conservation program. It envisioned a basinwide public health district with units in each county. It also examined the possibility of a water power program, but determined that investment in it was not economically feasible. In another negative finding, the committee concluded that no special program was needed to promote the basin's mineral development.²⁷

The plan for the Meramec Basin seemed to make sound economic sense. It made no attempt to impose a cost-benefit ratio on a fish and wildlife program because the other programs would lead to its natural implementation. The public health program also did not figure in its cost-benefit considerations and was accepted as important and necessary in its own right. "It is universally agreed that public health services are worth more than they cost," the planners asserted. "Furthermore, such a program is essential to the success of the recreational programs."²⁸ These exceptions aside, economic figures made a rather convincing case that the benefits would justify anticipated expenditures.

Projecting the long-run economic ramifications of the three major programs proposed by the study — reservoirs, agriculture, and recreation, to the year 1960, the dollar figures indicated that initial expenditures

and annual maintenance and operation costs would be more than offset by the benefits accrued, despite the rather staggering estimate that the initial cost for construction and installation would be in excess of \$100 million. Including both Meramec and Mississippi Rivers flood control — along with benefits to navigation, improved land values, and expanded recreation — the reservoirs, the committee predicted, would produce \$1.43 benefit for every \$1 expended. The agricultural and recreational programs were projected to be even more cost effective, producing \$1.90 and \$1.69 benefit respectively. (See Tables 1.1, 1.2, and 1.3.)²⁹

Early opposition to reservoir plan

In its report, the field committee recommended that state and local agencies join to implement this plan. But at the same time, it did not hide the fact that questions remained as to whether the three reservoirs were really necessary and really served the best interest of the region. For in addition to recommending the agricultural and recreation plans to augment the authorized reservoirs, several appendices expressed the doubts of some participating agencies. Representatives of these agencies wondered if less drastic measures than large reservoirs could better accomplish flood control requirements. The report noted that “had it not been assumed that major reservoirs are to be built on the main stems of the Meramec system, more flood control probably could have been provided” by a series of small upland reservoirs suggested in some of the alternative plans.³⁰

TABLE 1.1

Summary of Cost Estimates

| Program | Public Cost | Private Cost | Total Cost |
|--|-------------------------|-----------------|---------------|
| COSTS OF CONSTRUCTION OR INSTALLATION | | | |
| Major Reservoir | \$45,250,000 | — | \$45,250,000 |
| Agricultural | 13,592,000 | \$17,789,000 | 31,381,000 |
| Recreational | 23,638,000 | — | 23,638,000 |
| Public Health | (no installation costs) | | |
| | | | |
| MAINTENANCE AND OPERATION-AVERAGE ANNUAL | | | |
| Major Reservoir | 135,000 | — | 135,000 |
| Agricultural | 91,000 | 2,546,000 | 2,637,000 |
| Recreational | 200,000 | — | 200,000 |
| Public Health | 524,000 | — | 524,000 |
| | | | |
| TOTAL ANNUAL COSTS | | | |
| Major Reservoir | 1,954,000 | — | 1,954,000 |
| Agricultural | 499,000 | 3,080,000 | 3,579,000 |
| Recreational | 1,118,000 | — | 1,118,000 |
| Public Health | 524,000 | — | 524,000 |

Source: *Summary Report of the Meramec Cooperative Investigation Field Committee.*

TABLE 1.2

Expected Monetary Benefits
Discounted to Present Values If Not Immediately Realized

| Program and Type of Benefit | Average Annual Benefit-Dollars | |
|---|--------------------------------|--------------|
| | <u>By Type</u> | <u>Total</u> |
| MAJOR RESERVOIR PROGRAM | | |
| Flood control benefits: | | |
| Meramec Basin ^{1/} | \$628,000 | |
| Middle Mississippi | 230,400 | |
| Lower Mississippi | 186,700 | |
| Navigation benefits - Mississippi | 325,000 | |
| Enhancement of fish and wildlife | 83,600 | |
| Enhancement of land values around reservoirs | 592,000 | |
| Recreational benefits ^{2/} | <u>750,000</u> | |
| | | \$2,795,700 |
| AGRICULTURAL PROGRAM | | |
| Increased farm and forest production | 5,435,000 | |
| Reduction of flood damages | 48,000 | |
| Enhancement of fish and wildlife | <u>1,314,000</u> | |
| | | 6,797,000 |
| RECREATIONAL PROGRAM (to 1960) | | |
| Recreational benefits: | | |
| At major reservoirs | 750,000 | |
| At small lakes | 1,000,000 | |
| Enhancement of land values | 30,000 | |
| Enhancement of fish and wildlife | <u>114,000</u> | |
| | | 1,894,000 |

^{1/}Includes enhancement of land and property values below the reservoir.

^{2/}Includes only the recreational benefit expected to accrue by reason of private developments made possible by construction of the reservoirs. Recreational benefits attributable to installation of public facilities are ascribed to the recreational program.

Source: *Summary Report of the Meramec Cooperative Investigation Field Committee.*

TABLE 1.3**Comparison of Monetary Benefits and Costs**

| Program | Average Annual | | Dollar Benefit Per Dollar Cost |
|-----------------|----------------|-------------|--|
| | Benefits | Costs | |
| Major Reservoir | 2,796,600 | \$1,954,500 | 1.43 |
| Agricultural | 6,797,000 | 3,579,000 | 1.90 |
| Recreational | 1,894,000 | 1,118,000 | 1.69 |

Source: *Summary Report of the Meramec Cooperative Investigation Field Committee.*

The cooperative study was not released until 1949, but even as it was being drafted, skepticism mounted among various interested groups. The St. Louis Chamber of Commerce established a subcommittee of its Agricultural Bureau to study the impact of flood control projects specifically on the state of Missouri (as opposed to their impact on the whole Mississippi Valley). The Chamber was reacting to more than just Corps plans for the Meramec Basin. At the same time that the Meramec study was in progress, proposals for improvements on the Missouri and Mississippi Rivers were also extant. This subcommittee in 1946 recommended that the Chamber oppose Corps plans because it would destroy a million acres or more of productive agricultural lands, would reduce upland property values, and would probably inundate more land than the advocates admitted would benefit from flood control. Furthermore, the group expressed concern that much of the benefit of programs within Missouri would accrue to areas outside the state. The committee was left with a lot of questions about its feasibility for Missouri.³¹ Little transpired to alleviate these concerns between 1946 and 1949.

The Division Engineer for the Upper Mississippi Valley Division, Colonel C. Kittrell, was well aware of this opposition. He surmised that the major opposition derived from the cost-benefit issue for the state of Missouri and also speculated that the major antipathy was aimed not at the Meramec plan in particular, but at the overall Federal program for river development as it affected Missouri. He referred specifically to the Pick-Sloan Plan for the Missouri River, which had been approved in December 1944 and since then had been a concern to many interested

in the future of Missouri.³² The St. Louis District, reacting to the growing opposition, deferred hearings on the definite project report for the reservoirs until the Cooperative Field Committee Report was made public, hoping that a consideration of the two in tandem would defuse some of the concern.³³ This maneuver failed to appease the growing opposition.

Shortly before the study was made public, Colonel R.E. Smyser, St. Louis District Engineer, wrote to Colonel Kittrell identifying strong opposition to the Corps plans led by the Missouri Conservation Federation, a group that actively opposed high dams on "Ozark streams." A member of the Missouri House of Representatives had been recruited by this organization to sponsor a resolution calling for Congress to stop project appropriations. That the *St. Louis Post-Dispatch* was the only member of the press closely following the issue also bothered him, for that paper was "opposed to any project sponsored by the Corps of Engineers." Lack of positive backing further troubled the District Engineer. State agencies were noncommittal and there was even little active support in the Meramec Basin even among those who would benefit from river development.

Smyser advised extreme caution to avoid aggravating the situation and made several recommendations: to clearly determine the entire Corps program for the Ozark streams in Missouri; to send a board of engineers to discuss with state officials the plan for Missouri "as a unit," dropping the most controversial parts and compromising on others; to proceed with the plan by setting priorities beginning with what the state supported and proceeding to the problem areas; to educate the public on why the projects were needed; and finally, only after the other steps had been successful, to hold joint hearings with the state.³⁴ Events were moving too swiftly to pursue this long, drawn-out approach to garner needed support. Both the Cooperative Field Committee Report and the Corps plan were published in August 1949, and arrangements were made for the long-awaited hearings on the three reservoirs in the Meramec Basin.

On November 14, 1949, the Corps published notice of a series of public hearings scheduled for Union, Missouri, on December 13; Sullivan, Missouri, December 14; Hillsboro, Missouri, December 15; and St. Louis, December 16. More than 2000 people attended these hearings. The proceedings were basically orderly and well-attended by citizens with wide-ranging interests. But of those who spoke, nearly 70 percent were opponents. (See Table 1.4.)

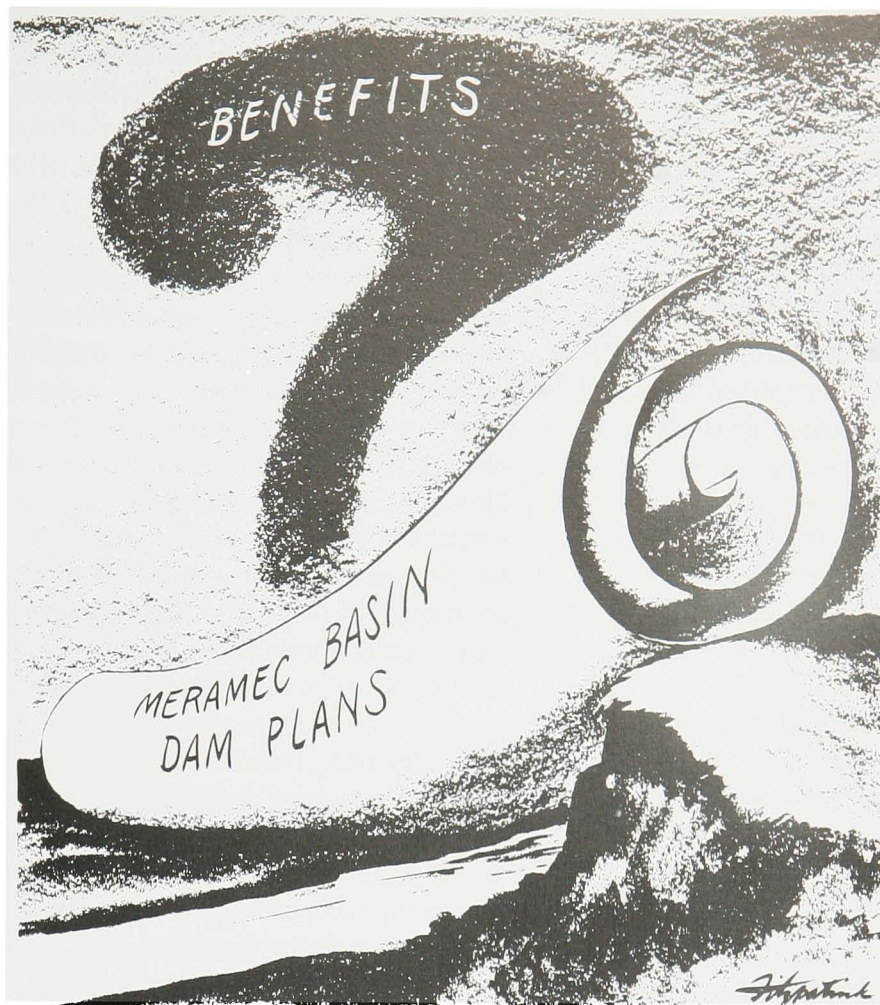
TABLE 1.4**Public Support and Opposition to Meramec Project**

| Attendance at Hearings | Total Attendance | Proponent Speakers | Opponent Speakers |
|-------------------------------|-----------------------------|-------------------------------|------------------------------|
| Union | 725 | 9 | 18 |
| Sullivan | 562 | 8 | 12 |
| Hillsboro | 521 | 1 | 29 |
| St. Louis | <u>278</u> | <u>15</u> | <u>17</u> |
| TOTAL | 2,086 | 33 | 76 |
| Written Statements | 788 | 97 | 691 |
| Petition Signatures | 4,474 | 1,496 | 2,978 |

Source: *Public Hearings, Meramec River, Mo, Appendix M, pp. 2-3*

Each meeting began with an explanatory statement by Colonel Smyser, followed by the introduction of representatives from various agencies, particularly at the state level. In displays that may have damaged public opinion, these representatives pointedly emphasized that their agencies neither supported nor opposed the Corps proposal, and that they had limited themselves to conducting the requested studies for the cooperative investigation.³⁵ This noncommittal response publicly exposed the rift in the cooperative nature of the committee, a rift that even Colonel Smyser's remarks did not address.

Indicative of this was his interpretation of the cooperative field committee's conclusions. The committee, as noted earlier, had found itself assuming the construction of reservoirs, although some members felt other measures were equally as beneficial. But Colonel Smyser interpreted the study's conclusions differently. He noted the exhaustive studies of various flood control methods: soil conservation, farm ponds, and a system of 200 small upland impoundments. He read the study to mean that none of these methods, singly or in combination, could control major floods. Only major reservoirs could accomplish this. He acknowledged that the Cooperative Committee recognized the importance of soil conservation and reforestation, but primarily as a means of preventing soil erosion and promoting better land use, not primarily for flood control.³⁶ Smyser's was a different interpretation than that conveyed by the report itself, which had assumed that reservoirs would be a reality, regardless of other factors, but that there were potentially viable alternatives. No one program, it admitted, could completely eliminate the destruction of floods, not even the reservoirs proposed by the Corps.



St. Louis Post Dispatch Dec. 16, 1949

A Very Big Question

(Cartoon by Fitzpatrick, Courtesy of the State Historical Society of Missouri)

These preliminaries dispensed with, Smyser would relinquish the floor to members of the audience eager to voice their concerns. Not surprisingly, the greatest support for the plan came from communities, such as Valley Park, that regularly endured the brunt of Meramec flooding. Additionally, some civic leaders were eager to support the reservoirs that promised economic development in many areas deriving from the expected influx of tourists.

However, while not as coherent and organized as would be the case later, the opponents were the most vociferous and numerous. Judging from the tenor of their remarks, self-interest was the primary motivator. Farmers did not want to lose land that would be flooded by the reservoirs. Longtime residents did not want their lives disrupted. Conservationists deplored potential damage to the region's natural habitat. A Catholic priest, Monsignor George Hildner, emerged as the leading opposition spokesman. Hildner was chairman of the Meramec Basin Resources Committee. Formerly the Meramec Protective Association,

Hildner: "Conservation of the Meramec's rural culture"

for more than a decade this group had actively fought dam projects in the basin. Composed of citizens from the communities along the Meramec River, the association sought to defend the rural culture against encroachment by urban civilization. Reflecting these goals, Father Hildner articulated his opposition by describing his own conception of "conservation." Sermonizing at Union, Missouri, he portrayed his group as favoring conservation of farms, of soil, and of wildlife, and protecting "our home and our culture and our civilization." He condemned the fact that outsiders — people in St. Louis and elsewhere — would be making the decisions to draw up or draw down reservoir levels, not those residents in the basin who would feel the immediate impact. Hildner distrusted the Corps of Engineers in particular. In his mind, this organization stood as the personification of governmental incompetence. The Corps was "putting the cart before the horse" in constructing the dams. Other means of alleviating floods needed to be attempted first, he argued. He felt one could protect the watershed by forms of conservation, but "you can't practice land conservation in the middle of a lake," an obvious reference to the plight of area farmers whose lands would be inundated by the reservoirs.³⁷

During his testimony, Hildner relied not only on speculation about the potential damage a reservoir project would cause, but he alluded to a specific instance that he, as well as others who testified, saw as indicative of the failure of Corps programs, the Wappapello Reservoir. According to him, Wappapello was designed primarily for flood control, but had failed to live up to its expectations.³⁸ Colonel Smyser countered that Wappapello's shortcomings stemmed from the fact that the reservoir was intended to be part of a comprehensive scheme including other improvements, such as levees. These other improvements were yet to be implemented, so the full benefits of the reservoir could not be evaluated.³⁹ Implied in this defense of Wappapello was the Corps' plan for the Meramec, which realistically included other improvements in the river basin besides three reservoirs. Nevertheless, reservoirs were the focus of public attention.

The hearings did little to ease the opposition's apprehensions. If anything, they underlined the prevalence of the opposition. The hope of generating support dissipated further when W.W. Horner himself publicly denied that the Cooperative Committee intended to endorse high dams as the best basis for a basin program.⁴⁰ Even though the opposition was poorly organized and did not rally around one coherent set of objectives, it was a grassroots movement that gained momentum as different groups coalesced. The Corps' hope that the reservoir plan, considered in conjunction with the Cooperative Field Committee report, might convince the public of the wisdom of the course being pursued, failed to be realized. The Meramec project, which had originated in a flurry of Federal activity after the Mississippi floods of the late 1920's and the Meramec floods of the mid and late 1930's, suffered its final blow when Governor Forrest Smith of Missouri publicly announced his opposition in December 1949.

Governor Smith rejects the Meramec Plan

The Governor acted after carefully assessing the political implications of the Meramec situation. He was swayed both by the lack of support among the citizens of Missouri as well as by concerned state entities. Agencies, such as the Missouri Division of Resources and Development, had distanced themselves from the report's recommendations during the public hearings. The Missouri Senate, in Resolution No. 122, had gone on record in opposition as well. The lack of political support on the state level obviously affected Governor Smith, but the expressed rationale for his stance was the lack of cost-benefit value for navigation and flood control and his perception that a clear national plan to confront these issues, particularly in regard to the Mississippi River, did not exist. "Thus we have a proposal," he explained, "designed primarily for flood control and navigation under National policies pertaining to those matters even though they constitute a minor part of the potential benefits. Other benefits which constitute a major part of the potential benefits are treated in an incidental manner and seemingly are not considered under National policy except as a justification for works to produce benefits of lesser importance."⁴¹

The first phase of the Meramec River saga thus came to an end. While many things would change before the issue emerged again a decade later, many of the forces at work to doom the project in this early period portended the later controversy. An amalgam of different interest groups, some better informed than others, composed the opposition. Farmers who feared the loss of their land, particularly those whose land might be inundated by the reservoirs, pursued their own self-interest in opposing the proposal. So too, did the St. Louis Chamber of Commerce, which considered the Meramec Plan in conjunction with the Pick-Sloan Plan for the Missouri River, and determined that Missouri had less to gain than did other communities and states on the lower Mississippi River. State agencies also were cautious in endorsing the proposal, both questioning how much Missouri would really benefit and balancing the political consequences. Finally, conservation groups, such as the Ozark Conservation Federation, reared their heads, albeit not so demonstrably and coherently as later. They expressed concern for the future of the river valley, not completely convinced that three reservoirs could accomplish any more than less drastic alternative plans of land management, reforestation, or smaller impoundments.

Magnifying the impact of this rather disjointed, grassroots opposition was the weakness of proponents. Many communities in the Meramec River Basin recognized the value of flood control, since they were regularly devastated by floods. Others coveted the economic stimulus that reservoirs would provide for this backward, rural region. Yet only a weak Meramec Flood Control Association existed. The potential benefits were evidently not sufficiently strong inducements to generate avid support.

In the midst of this political and economic dilemma, the Corps of Engineers stood as the most visible manifestation of Federal policy. The Corps was forced to deal with a volatile political and economic

situation. Mandated by Congress — which in the heady days of the late 1930's had rather precipitously authorized two dams — to construct reservoirs to provide flood control and other benefits for the Meramec Basin, the Corps faced a predicament. Congress was driven by the belief that aggregate incremental flood control on the lower Mississippi could be achieved from numerous tributary reservoirs. However, even if from an engineering standpoint, using the Corps' evaluation criteria, the three proposed reservoirs made the best sense, the ultimate decision was to be made in the political arena. Here, the St. Louis District had difficulty convincing the citizens of the basin that it would be to their long-term benefit to support the reservoirs. Consequently, given the lack of a clear endorsement from the Cooperative Field Committee, the predominance of opposition over supporting views, and all the questions remaining about alternative, less drastic methods for flood control, the proposal was doomed. The Governor of Missouri did not irrevocably reject the plan, but deferred it. The time had not yet come for the implementation of such a project.

Notes-Chapter 1

1. Senate Executive Document 44, 46th Congress, 3d Session, 1880; *Annual Report of the Chief of Engineers, 1880*, p. 161; 1881, pp. 1596-97; Major W.A. Snow, District Engineer, to Chief of Engineers, Feb. 25, 1931, R.G. 77, Office of Chief of Engineers, Civil Works, 1923-42, Rivers and Harbors File, Meramec River, File 7074, National Archives, Suitland, Maryland; George R. Spalding, Upper Mississippi Valley Division Engineer, to Chief of Engineers, Nov. 16, 1931, *ibid.*

2. Report by the District Engineer, St. Louis, Missouri, on the Meramec River and Its Tributaries, the Big and Bourbeuse Rivers, April 1, 1929, District Historical Files (hereinafter cited as 1929 Report); published as *House Document 686*, 71st Congress, 3d Session, Dec. 16, 1930.

3. "12 Dead in Meramec Floods"; "Horrors of Scene Described by an Eyewitness," *St. Louis Globe-Democrat*, Aug. 23, 1915.

4. Edward E. Middleton, "Interagency Coordination: The Evaluation of Comprehensive Integrated Planning in the Army Corps of Engineers," (unpublished Ph.D. dissertation, Indiana University, 1985), pp. 88-89; for an account of the devastation of the 1927 flood along the Mississippi River, see Pete David, *Deep'n As It Come: the 1927 Mississippi River Flood* (New York: Oxford University Press, 1977).

5. Middleton, "Interagency Coordination," pp. 87-88; Frederick J. Dobney, *River Engineers on the Middle Mississippi: A History of the St. Louis District, U.S. Army Corps of Engineers* (Washington, D.C.: GPO, 1978), pp. 57, 61, 78-81; Martin Reuss, "Andrew A. Humphreys and the Development of Hydraulic Engineering: Politics and Technology in the Army Corps of Engineers, 1850-1950," *Technology and Culture* 26 (Jan. 1985), pp. 29-30.

6. Public Law 70-560 (21 Jan. 1927), *Rivers and Harbor Act of 1927*, 45 Stat. 534; Dobney, *River Engineers on the Middle Mississippi*, pp. 83-84.

7. 1929 Report; Major General Lytle Brown, Chief of Engineers, to Secretary of War, Dec. 15, 1930, R.G. 77, Office of the Chief of Engineers, Entry 500, Meramec River, File 3377, National Archives, Suitland, Maryland.

8. Dobney, *River Engineers on the Middle Mississippi*, p. 77.

9. Middleton, "Interagency Coordination," p. 95; District Engineer to Lieutenant R.L. Dean, Military Assistant in charge of Construction Section, Mar. 21, 1935, District Historical Files.

10. Donald S. Blair, Area Engineer, to District Engineer, Dec. 9, 1935, *ibid.*

11. David Bailey, President, Lake Meramec Association, to Major General E.M. Markham, Chief of Engineers, Dec. 12, 1933, R.G. 77, Office of Chief of Engineers, Civil Works, 1923-42, Rivers and Harbors File, Meramec River, File 7243, National Archives, Suitland, Maryland; Bailey to Fred E. Schnepfe, Director of Federal Projects, Federal Emergency Admin. of Public Works, Mar. 3, 1934, *ibid.*; Bailey to George H. Dern, Secretary of War, June 7, 1934, *ibid.*; B.M. Harloe, St. Louis District Engineer, to Division Office, Upper Mississippi Valley Division, Feb. 7, 1934, *ibid.*; E.L. Daley, Division Engineer, to Chief of Engineers, Feb. 10, 1934, *ibid.*

12. Middleton, "Interagency Coordination," pp. 179-80; Public Law 74-738 (June 22, 1936), *Flood Control Act of 1936*, 49 Stat. 1570; Beatrice H. Holmes, *A History of Federal Water Resources Programs* (Washington, D.C.: GPO, 1972), p. 16.

13. Public Law 75-761 (June 28, 1938), *Flood Control Act of 1938*, 52 Stat. 1216; Dobney, *River Engineers on the Middle Mississippi*, pp. 144-45.

14. Congressman Clyde Williams to Major General J.L. Schley, Chief of Engineers, Jan. 21, 1939, R.G. 77, Office of Chief of Engineers, Civil Works, 1923-42, Rivers and Harbors, Meramec River, File 7245, National Archives, Suitland, Maryland; Resolution of Conservation and Preservation Club, Nov. 27, 1939, *ibid.*; Congressman J. Buell Snyder to Major General Schley, Feb. 1, 1939, *ibid.*

15. Otis L. Graham, Jr., and Meghan R. Wander, eds., *Franklin D. Roosevelt, His Life and Times: An Encyclopedic View* (Boston: G.K. Hall and Co., 1985), pp. 277-78; Middleton, "Interagency Coordination," pp. 180-182.

16. *Summary Report of the Meramec Cooperative Investigation Field Committee: A Program For the Meramec River Basin*, jointly prepared by Agencies of the State of Missouri and Agencies of the United States, August 1949, Preface, p. 2 (hereinafter cited as *Summary Report*).

17. *Ibid.*, Preface, pp. 2-3.

18. *Ibid.*, Preface, p. 3.

19. *Ibid.*, Preface, pp. 6-7.

20. *Ibid.*, Preface, p. 8; Hugh Denney, *Recreational Values and Benefits*, undated, Papers of Howard L. Cook, File 467, Rivers and Harbors—Meramec—Recreation, 1944-46, Office of History, Fort Belvoir, Virginia; Howard W. Mayne, *Evaluation of Recreation*, Aug. 8, 1944, *ibid.*;

Horner to Mayne, May 17, 1944, *ibid.*; Summary of Proposed Methods of Evaluating Recreational Benefits, undated, *ibid.*; Arthur L. Clark to Horner, July 10, 1944, *ibid.*

21. *Summary Report*, Preface, p. 3.

22. *Ibid.*, Section II, p. 8; Interview with Michael Dace, Feb. 15, 1985.

23. Conservation Commission, State of Missouri, A Summary of Studies Conducted on the Meramec Basin and Recommendations for the Most Desirable Land and Water Program for Fish and Wildlife, Aug. 18, 1948, Cook Papers, File 461, Rivers and Harbors — Meramec — Fish and Wildlife, 1948-49.

24. Meramec Basin, Comments By the Chairman as Water Consultant, undated, *ibid.*, File 455, Rivers and Harbors Meramec River Basin - General, 1945-1949.

25. *Summary Report.*, Section II, pp. 8-9; see also St. Louis District, Corps of Engineers, *Informational Brochure: Multiple Purpose Reservoirs, Meramec Basin.*

26. *Summary Report*, Section II, pp. 9-11.

27. *Ibid.*, Section II, pp. 10-20.

28. *Ibid.*, Section V, p. 30.

29. *Ibid.*, Section III, p. 25; Section IV, p. 28; Section V, p. 31.

30. *Ibid.*, Section II, p. 23.

31. High Dams Subcommittee of the Agricultural Bureau of the St. Louis Chamber of Commerce, April 1, 1946, signed by Joseph R. Cosgrove, Chairman, R.G. 77, Examinations and Surveys, Meramec River, 1946, Box 540808, File 800.922, National Archives, Kansas City Regional Branch.

32. Colonel C. Kittrell, Division Engineer, Upper Mississippi Valley Division, to Brigadier General L.A. Pick, Division Engineer, Missouri River Division, May 10, 1946, *ibid.* Examples of other opposition can be found in H.H. Krusekopf, Department of Soils, Missouri College of Agriculture, "Missouri's Interest in Flood Control," *ibid.* The Pick-Sloan Plan was a compromise between plans submitted by the U.S. Army Corps of Engineers and the Bureau of Reclamation, aimed particularly at providing flood control along the Missouri River and its tributaries; it included reservoirs, levees, and other improvements from Sioux City, Iowa, to where the Missouri River flowed into the Mississippi River; See Middleton, "Interagency Coordination," pp. 120-26, 136-37; for a detailed examination of the Pick-Sloan Plan, see Marian E. Ridgeway, *The Missouri Basin's Pick-Sloan Plan* (Urbana: University of Illinois Press, 1955).

33. Colonel C. Kittrell to Chief of Engineers, Nov 20, 1947, R.G. 77, Examinations and Surveys, Meramec River, 1947, Box 540808, File 800.922, National Archives, Kansas City Regional Branch.

34. Colonel Smyser to Kittrell, April 19, 1949, Examinations and Surveys, Meramec River, 1949, *ibid.*

35. The full transcripts of the four hearings can be found in St. Louis District, U.S. Army Corps of Engineers, *Definitive Project Report, Multiple Purposes Reservoirs, Meramec Basin, Missouri: Appendix M, Public Hearings.*

36. Union, Missouri, Hearings, *ibid.*, pp. 19-20.

37. *Ibid.*, pp. 37-38.

38. *Ibid.*, p. 38; for another example of the Wappapello charges, see testimony of Charles Callison, Boonville, Missouri, *ibid.*, pp. 55-57.

39. Colonel Smyser presented the Corps' defense of the Wappapello project at the Union Hearings, *ibid.*, pp. 57-58.

40. *St. Louis Post-Dispatch*, Dec. 17, 1949.

41. Governor Forrest Smith to Major General Lewis A. Pick, Dec. 23, 1949; "Statement on Meramec Basin Reservoirs by Forrest Smith, Governor of Missouri," Dec. 21, 1949, R.G. 77, Box 540808, File No. 800.922, Examinations and Surveys, Meramec River, 1950, National Archives, Kansas City Regional Branch; Missouri Senate Resolution No. 122, Dec. 12, 1949, District Historical Files; John A. Short, an engineer with the Missouri Division of Resources and Development, wrote to Howard Cook at the time the governor was preparing to speak in opposition. He noted that the whole matter "reflects a growing awareness of the inadequacies of present Federal policies and procedures"; Short to Cook, Dec. 19, 1949, Cook Papers, File 455, Rivers and Harbors — Meramec River Basin — General, 1945-1949.

2

Chapter 2

The Plan

The growth in the Federal government prompted by the New Deal's response to the Depression had had a definite impact on water resource programs. In fact, as Beatrice Holmes noted in her history of Federal water resource policy, Federal activities concerned with construction "expanded much more during the 1940's and 1950's than they had during the much publicized public works programs of the 1930's."¹ During this time, however, there was an absence of overall planning policy. New programs became increasingly the domain of congressional committees whose members were more attuned to the regional needs of their constituents than to a coordinated national policy. In 1943 with the demise of the National Resources Planning Board, the agency that had overseen the initiation of the Meramec Basin study, there was no vehicle for the Executive Branch to set priorities and standards for water projects (except for the benefit-cost standards required by the Bureau of Budget).

The Eisenhower administration, furthermore, was leery of expanding the scope of Federal projects. For instance, Eisenhower was opposed to using the Federal government to subsidize regional economic development. This situation began to change toward the end of the decade as new issues, such as environmental questions and water supply problems, assumed increased urgency. Also, a new president intent upon using the Federal government to set a new direction for the country took office in 1961.² The eventual change in Federal policy corresponded to a renewed interest in Meramec Basin development.

In the aftermath of the 1949 plan's rejection, interest in Meramec Basin development waned, but did not die. The events during the 1940's foreshadowed important future considerations. First, the vagaries of weather that had initially instigated interest in Meramec Basin development continued to be a pressing concern. Second, the basin's socioeconomic dichotomy—the primarily rural, agricultural regions in its upper reaches next to the urban environment of St. Louis County in the lower part—became even more pronounced in the 1950's. The rural areas faced economic decay as the industrial regions expanded dramatically. Third, the planning process in the 1940's had revealed both the problems and the continued need for multipurpose planning. Multipurpose planning would continue as a focus for future efforts, but now with different emphases. The basin would still be considered in conjunction with the Mississippi River and its needs, but the Meramec region's own needs would be increasingly stressed. Flood control remained a major concern. Recreation had been recognized as a legitimate activity for Corps planning

by the Flood Control Act of 1944 and had assumed a prominent position in the 1949 plan. Now with the continued expansion of the St. Louis population and the accompanying demand for recreational outlets, this factor would continue to grow as a pressing consideration.

Droughts and floods re-
vive interest in reservoirs

The status of the Meramec Basin languished for the first half of the 1950's. By late in the decade, however, some were convinced that a reconsideration of development plans was in order. Not only had rural economies of the upper basin continued to deteriorate, but in contrast, the St. Louis area in the lower reaches prospered and grew. Extremes of drought and flood regularly disrupted the region. Often in the past, people had been content to leave things as they were until confronted directly with problems; but once difficulties arose, they clambered for action. This happened again in the 1950's. The most severe and prolonged drought in 40 years struck between 1952 and 1955. Then, with only a two-month respite, it continued until January 1957. President Dwight D. Eisenhower named Missouri a disaster area in 1954, making 76 counties eligible for Federal aid. Heavy rain during June and July of 1957 abruptly ended the drought, but set off flooding. Valley Park, vulnerable to both rain runoff from the upper basin and backwater from the Mississippi, was particularly hard hit. The river rose to 32 feet, according to calculations, the fourth highest reading since 1915. Estimates of flood damage exceeded \$4 million around St. Louis.³

By late 1957, residents were poised to act. Regardless of their past stance on river development, concerned citizens from both camps acknowledged that they needed to address the problem. John F. Hallett, a longtime proponent of Meramec dams and chairman of the St. Louis Chamber of Commerce Meramec Basin Development Committee, and Edward Beecher, an anti-dam activist, joined to promote an organized study of the region. The Meramec Basin Corporation was consequently incorporated in June 1958 and pursued two parallel courses of action over the next few years.⁴ First, it established an independent research project to examine the economic needs of the basin as they pertained to water resources. Second, it lobbied state and federal officials to revive governmental interest in regional planning.

Washington University
study assesses basin's
needs

A research group to conduct an independent study of the Meramec Basin's needs was established at Washington University in St. Louis, Missouri. Under the direction of Dr. Edward L. Ullman, a noted geographer on the staff of the University of Washington in Seattle, organization of the investigation began in the fall of 1958, and the actual research commenced in 1960. The two-year study was funded by various civic organizations, including the St. Louis Regional Planning and Construction Foundation and the St. Louis Regional Recreation and Conservation Foundation, as well as numerous private sources and individuals. The group surveyed the general nature and economic development of the Meramec Basin, with particular emphasis on water resources. Its conclusions were made public in February 1962 in a three-volume report entitled *The Meramec Basin Water and Economic Development*.⁵

The interesting thing about this report was its emphasis. Focusing especially on the economic situation and its relation to water resources, it differed from past analyses in pointedly stressing recreation, both as it addressed the deep-felt needs of the growing St. Louis metropolitan area and as a boost to many of the economically depressed rural communities. In summarizing its findings and recommendations, the researchers began by considering the general characteristics and the diverse economic influences of the basin. They postulated that 40 percent of the population were employed by agriculture; 45 percent by mining and manufacturing; and 15 percent by service industries.⁶

The report painted a rather gloomy economic picture. It foresaw agriculture regressing as a prominent part of the employment picture. At the same time, mining, once a dominant activity, had declined in importance, though there was promise of a future resurgence. Recreation, which could generate service jobs, was once again the one bright spot. Because of the abundant natural landscape of forests and river foliage and the river's proximity to St. Louis, recreation had great potential for growth. The researchers conceded that local economic benefits derived from recreation could be overstated; nevertheless, they would be significant.⁷

The study confronted the flooding problem; but compared with earlier and later investigations, floods and the need to control them were downplayed. According to the report's findings, "the magnitude of the problem [was] often exaggerated" and was no real problem "as long as the flood plain of the river [was] not used for human activities." They posited a multifaceted program to manage floods, including more stringent zoning of flood plains, an improved early warning system, land treatment measures, and reservoirs. "Construction of reservoirs," the report remarked, "and their operation for flood control can be helpful in reducing flood damages. It is not feasible to provide 'complete' protection, but in connection with other measures, reservoir protection would prove useful." Later the treatise emphasized that, given the importance of recreation for the area, reservoirs should not be operated primarily for flood control.⁸

Finally, the report examined other possible basin needs—water supply, sewage disposal and water quality, navigation, irrigation and the potential for hydroelectric power. Acknowledging the future importance of some of these, the analysis nevertheless relegated them to a place of lesser significance.⁹

"Major problems and opportunities...lie in recreation."

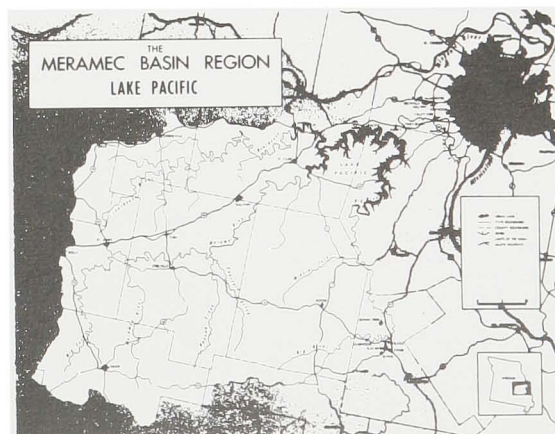
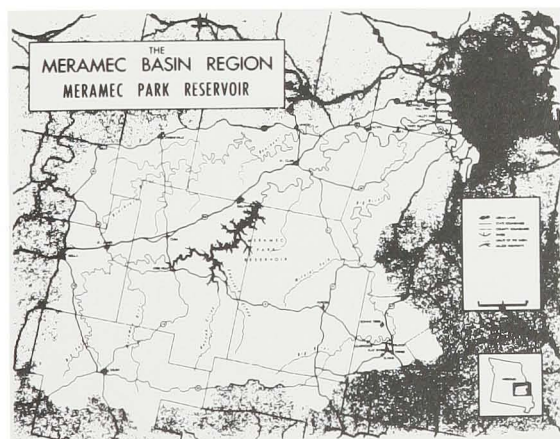
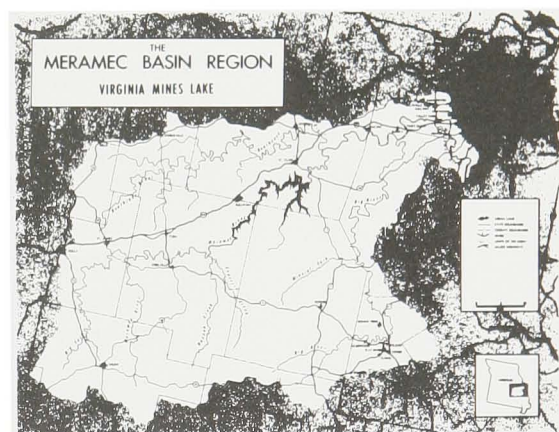
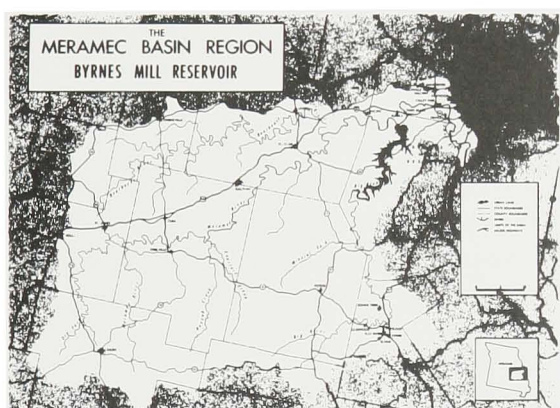
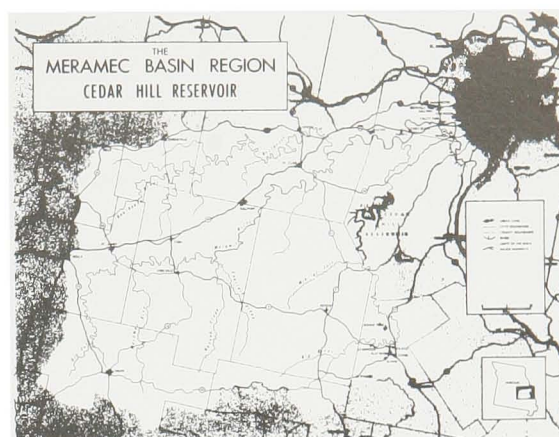
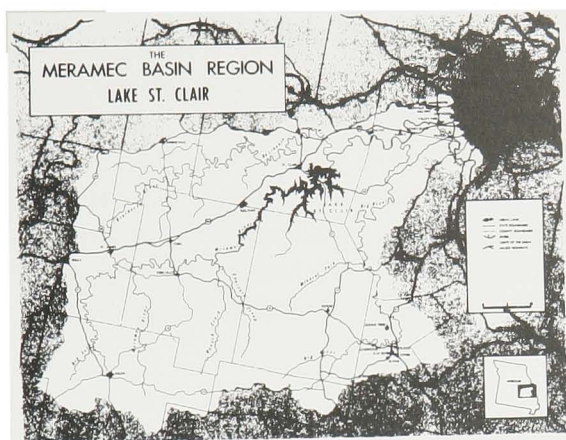
Interpreting the mass of data, the Washington University group reached some important conclusions: "The major problems and opportunities for water resource development lie in recreation. None of the other water-oriented needs (for navigation, for flood-free land, for water supply) is as pressing as the need for large-scale, water-oriented facilities near St. Louis." Their development within the basin, the group projected, would favorably affect the region's economy. It would take both local and Federal participation to make such a plan for recreational development a reality.¹⁰ The researchers, therefore, recommended construction

of one reservoir, primarily for recreation, as close to St. Louis as possible. They also proposed the construction of one or two smaller reservoirs to serve the basin's more remote regions.

Incidental local flood protection benefits might accrue from this reservoir, the group predicted, but they admitted that the reservoir would have little impact on Mississippi River flooding. In fact, other less drastic measures, such as those mentioned earlier, could just as adequately serve the purpose of alleviating floods. Yet, they argued that in economic terms, flooding was not a costly proposition in the upper basin, where there was not a great deal of flood plain development. Most damage centered in the more developed regions nearer to St. Louis, the same place where there was a pressing need for recreational opportunities. The report acknowledged that a lot of coordinated planning was necessary. There would have to be close and precise management of the land surrounding the reservoir. Financing would have to come from a combination of local, state, and Federal sources.¹¹

The group anticipated a well-planned development, proceeding by stages, and specifically examined six potential large reservoir sites: Lake Pacific; Byrnes Mill Reservoir; Cedar Hill Reservoir; Lake St. Clair; Virginia Mines Lake; and Meramec Park Reservoir. Each site underwent an evaluation of its costs versus the benefits it would produce (See Table 2.1). A comparison of the Lake Pacific site, the Washington University group's primary choice, and the Meramec Park Reservoir, ultimately the Corps of Engineers' ill-fated choice, illustrates the type of evaluation the research group undertook to select the best reservoir locations.

Six Reservoirs, 1962 Washington University Study



The greatest benefits, the group postulated, would derive from construction of Lake Pacific Reservoir, formed by a dam across the Meramec below its confluence with the Big River above Times Beach. In the overall plan, this reservoir would be complemented by two smaller impoundments to serve the more remote basin regions. The main reservoir, covering 32,000 acres with a shoreline of 500 miles, would be 45 minutes driving time from St. Louis. Accessibility was its major advantage, for it could easily satisfy the recreational needs of St. Louis. Its major drawback was added cost caused by the inundation of part of the city of Pacific and of some smaller towns. Several miles of railroad line would also have to be relocated. But, according to research evidence, the recreational benefits would outweigh these costs. Besides, the portion of Pacific to be inundated, the group contended, was the poorer section of town and the railroad no longer needed as many facilities since its commuter service with Pacific as the terminus had been discontinued in 1961.

The lake's location had positive scenic features and good water quality. The researchers also noted that St. Louis County, where the reservoir would be located, had an active planning commission and strong zoning codes, necessities to ensure proper shoreline control and restriction of private development. Proper zoning and control of private development was a persistent concern of this and later plans because the possibility existed for overdevelopment of the land, especially if businessmen rushed in to exploit the tourist industry. As for flood control, the researchers predicted that Pacific Lake would do an "efficient job" since it controlled the drainage from almost 95 percent of the basin and because it was located just above primary flood damage centers. It had a larger capacity for flood control than any of the other five reservoir sites investigated.¹²

Meramec Park Reservoir evaluated

The Meramec Park Reservoir had the advantage of "storing more water for less money than other proposed reservoirs." Since it was above the confluence of the Meramec with the Bourbeuse River, it would potentially provide the clearest water for recreation and would have a scenic shoreline. Seventy road miles from St. Louis, it was the furthest of the six reservoir sites from St. Louis, a definite drawback in the minds of the researchers. But that was not its greatest disadvantage. The reservoir, it was predicted, would flood several miles of the Huzzah and Courtois Creeks, when flood water storage required long periods with above-normal pool levels. This would cause great loss of natural vegetation. Lake level fluctuation at Meramec State Park was expected to be greater than at Pacific. The researchers suggested that construction of a somewhat lower dam than recommended by the Corps of Engineers in their 1949 report would lower costs. But they also warned that several caves in the area would be inundated.

TABLE 2.1
Comparative Data on Reservoirs

| | Pacific | Byrnes Mill | Cedar Hill | St. Clair | Virginia Mines | Meramec |
|---|-------------|-------------|------------|-------------|-------------------|------------|
| Location (river miles) | 37.0 | 0.5 | 22.6 | 69.9 | 82.4 | 107.5 |
| Normal Pool Level (feet above sea level) | 480 | 480 | 530 | 590 | 590 | 660 |
| Maximum Pool Level (feet above sea level) | 505 | 505 | 560 | 620 | 620 | 690 |
| Normal Pool Area (square miles) | 50 | 17 | 12 | 33 | 15 | 17 |
| Maximum Pool Area (square miles) | 75 | 28 | 21 | 57 | 28 | 30 |
| Approximate length of shoreline at normal pool (miles) | 500 | 150 | 100 | 300 | 150 | 150-200 |
| Flood storage (acre-feet, 1,000s) | 1,000 | 350 | 320 | 850 | 400 | 450 |
| Drainage area (square miles) | 3,880 | 970 | 860 | 1,800 | 1,750 | 1,510 |
| Drainage area (Percent of total Meramec) | 95 | 24 | 22 | 45 | 44 | 38 |
| Distance from St. Louis (air miles) | 25 | 25 | 35 | 45 | 50 | 60 |
| Distance from St. Louis (road miles) | 30 | 30 | 45 | 55 | 60 | 70 |
| Distance from St. Louis (minutes) | 55 | 55 | 70 | 75 | 80 | 90 |
| Landscape (good/bad) | good | good | good | good | good | good |
| Water Quality (good/bad) | fair | fair | fair | good | good | good |
| Hydropower (yes/no) | yes | no | no | no | no | no |
| Water Supply (good/bad) | good | good | fair | fair | fair | fair |
| Estimated Annual Visitor-days | 15,000,000 | 12,000,000 | 4,000,000 | 6,500,000 | 5,000,000 | 4,000,000 |
| Costs, Dam and Reservoir (\$) | 76,000,000 | 30,000,000 | 29,000,000 | 42,000,000 | 18,000,000 | 32,000,000 |
| Costs, Total, First Capital(\$) | 106,000,000 | 49,000,000 | 36,000,000 | 54,000,000 | 26,000,000 | 42,000,000 |
| Net Benefits (\$) | 208,000,000 | 139,000,000 | 68,000,000 | 110,000,000 | 103,000,000 | 65,000,000 |
| Benefit-Cost Ratio (\$) | 1.8:1 | 2.0:1 | 1.8:1 | 1.8:1 | 2.1:1 | 1.7:1 |

*Excludes possibility of pumped storage, not investigated.

^b50 years at 2.5%.

Source: Ullman, Boyce, Volk, *The Meramec Basin Water and Economic Development*, Vol. I.

Regulation of the shoreline would also be more difficult around the Meramec Reservoir since it was situated in Crawford County, which, unlike St. Louis County, had no active planning commission. On the positive side, however, an already existing state park and wildlife reserve could potentially provide the beginning of a desirable public reservation that could be expanded. Land could also be acquired rather cheaply.

The researchers judged that Meramec Park Reservoir would be "useful" in reducing flood damage downstream. The drainage area it controlled was about 1500 miles. Nevertheless, it measured up to Lake Pacific neither in drainage area nor in flood storage capacity. Because of its central location in the Meramec Basin, small supplementary reservoirs for recreation were less essential than in Lake Pacific, although one in the vicinity of the Lead Belt "might be desirable."¹³

Overall, the Washington University report was an economic assessment of the region as it pertained to water resources. Recreation emerged as its principal consideration. While it recommended a long-range plan for development, it advised proceeding by stages. It laid the groundwork for what might be called a complete system, such as the three dam system envisioned by the Corps of Engineers' 1949 report.

When the analysis was published, it evoked differing, yet cautious, responses. The *St. Louis Post-Dispatch* noted that the plan "constricts the scope of concern" by stressing recreation. The newspaper criticized spending millions of Federal dollars largely for this purpose. John Hallett, in contrast, hailed the findings. Speaking to the League of Women Voters, he declared that the plan would arrest the economic and industrial slide of the St. Louis area. Besides Pittsburgh, he observed, St. Louis was the only large U.S. city that lacked adequate water recreation. Pittsburgh was planning to alleviate this shortcoming. He predicted that with proper development the Washington University plan could lead to 100,000 jobs and a bright future.¹⁴

This study encouraged those who wanted the Meramec developed, but it was only a first step and had no meaning if it was not implemented by the appropriate governmental authorities. Realizing this, the Meramec Basin Corporation, at the same time that it began sponsoring the Washington University investigation, endeavored to revive governmental involvement. The group lobbied for congressional action to reopen the Corps' 1949 study. But in light of the 1949 debacle when the Governor of Missouri publicly repudiated the reservoirs, the Federal officials hesitated until they received assurances of state support. That assurance was soon forthcoming, prompted by the efforts of the Meramec Basin Corporation. On July 14, 1958, Missouri Governor J.T. Blair wrote to the St. Louis District Engineer asking that he take appropriate steps to update the 1949 study. Admitting that the state had previously withdrawn its support for the project, the Governor explained that there was renewed interest among various individuals and groups and that Missouri now had a "changed economic situation."¹⁵

Interest renewed in Corps reservoir plans

Armed with the Governor's endorsement, reservoir supporters pressured Representative Clarence Cannon of Missouri, Chairman of the House Appropriations Committee, who had formerly opposed plans for the Meramec Basin.¹⁶ As a powerful and influential member of the House, Cannon could sway congressional colleagues to back a revised study. He was finally won over and in March of 1960 asked the Chairman of the House Public Works Committee to prepare a resolution calling for a restudy. On April 6, 1960, a committee resolution authorized the Corps of Engineers to reexamine past reports "with a view to determining whether the existing project for the Meramec River Basin should be modified in any way at the present time in the interest of flood control, water conservation, navigation, and other purposes." The resolution required cooperation with other Federal agencies and also specified that the plans of the Meramec Basin Corporation be coordinated with Federal interests in the basin. Between fiscal year 1961 and 1964, \$384,000 were appropriated to review the Meramec Basin project, \$200,000 of which were specifically ear-marked to restudy the Meramec Park Lake.¹⁷

The Corps of Engineers tried to handle the restudy in a comprehensive fashion. Since the Washington University Report was only 2 years old, the Corps utilized much of its data. Also, as in the earlier Federal study, the Corps encouraged cooperation between federal, state, and local entities. In the hope of avoiding the public misconceptions that had doomed the 1949 plan, the St. Louis District worked to keep the public informed at every stage of the process.

The public information campaign began early with the District Engineer, Colonel Alfred D'Arezzo, holding information meetings. Besides providing information, he hoped to get a feel for public opinion. At a meeting in St. Clair, Missouri, on April 7, 1961, he and other Corps employees sampled this public sentiment. Not surprisingly, it was rather muted, since it was still unclear where the Corps study was heading. Also, the travails of the 1950's, the droughts and floods, and the depressed economic state of the basin influenced many of those present. Many state agencies that sent representatives expressed willingness to cooperate, but stopped short of endorsement. However, mayors and civic leaders from many basin communities voiced their support. Numerous rural residents spoke of potential economic development, and civic leaders from St. Louis eyed recreational opportunities that would enhance the quality of urban life and stimulate outside investment.

If supporters saw many of the same benefits they had seen in the 1940's, opponents also repeated familiar arguments. One woman who identified herself as a tree farmer, opined that conservation and prevention of soil erosion were sufficient measures to control the Meramec's cycle of floods. She condemned as "socialism" ideas that Government should provide recreation for those who could not afford it. In a rhetorical flourish, she called the Meramec Basin unique and asserted that "we don't want any greedy vultures tampering with our lands for their own personal gains."

Others were concerned about the Corps' role, fearing the outcome if that agency were given a free rein to develop the valley. Conservationists in the 1940's had criticized the Corps' encroachment on the environment, but the environmental issue did not evoke a strong public response. The public conscience was still not aroused in 1961, but this would change before the decade's end.

One notable turnaround from the 1940's encouraged reservoir supporters and discouraged opponents. Monsignor Hildner, the conservationist priest who had been an outspoken opponent of dams earlier, came out in favor of the revived study. He was now convinced that the situation had changed and that a comprehensive plan would be good for basin residents. He encouraged the Corps to pursue its work in order to provide the "maximum amount of good with the minimum amount of injury to anybody."¹⁸

Just as the New Deal had provided a lot of impetus for the earlier Meramec investigation, so the early 1960's generated a political climate conducive to a restudy. The 1960 presidential election replaced the rather complacent Eisenhower administration, which had been intent on controlling Government spending, with an aggressive and dynamic administration under President John F. Kennedy. Bringing a new spirit to his office, Kennedy was eager to use the Federal government to inaugurate a "New Frontier." His new activism affected the Meramec study in several ways.

First, one of the Kennedy administration's targets was America's resources. The president wanted to develop them to bring the greatest good to the greatest number. In 1962, a special committee he had appointed issued a report, "Policies, Standards, and Procedures in the Formulation, Evaluation and Review of Plans for Use and Development of Water and Related Land Resources," which led to a new set of interagency water standards, published as Senate Document 97. This document defined the objectives of water and related land resource planning as economic development, preservation of natural resources, and promoting the well-being of the people. It established recreation and water quality as Federal concerns equal to flood control, navigation, and the other purposes Federal planners had taken into consideration in the past. It encouraged consideration of local and state, as well as national, interests in project planning and pointedly preferred multiple-purpose over single-purpose plans. According to the guidelines, while benefit-cost ratios were to be based on tangible effects of any proposed project, reports could take into account intangibles such as regional economic expansion and employment opportunities in depressed areas. This document encouraged the development of America's water resources and nudged the Corps toward greater coordination with other agencies, both federal and nonfederal.¹⁹ In conjunction with these agencies, the Corps moved demonstrably toward more comprehensive planning and away from its older, narrower emphasis on navigation and flood control.

1960's Activism = New
context for basin planning

Second, concerned with improving America's quality of life, the president encouraged coordinated efforts by Federal agencies to develop recreational opportunities. With administration support, the Federal Water Project Recreation Act became law after the president's death in 1965. It required that outdoor recreation and fish and wildlife development be an integral part of water planning. This heartened Meramec project supporters who, as was seen in the Washington University study, were increasingly interested in recreational opportunities.

Third, related to the second, urban renewal received new impetus in the 1960's. Development of the Meramec's recreational potential would foster the revitalization of the St. Louis area by encouraging companies to invest in that urban area.

Finally, the environmental movement, which became central to the Meramec dispute by the 1970's, had its roots in the 1960's. As Edward Middleton has noted in his study of Corps comprehensive planning, "Environmentalism emerged as a cohesive philosophy and political force with the publication in 1962 of Rachel Carson's *Silent Spring*. *The Quiet Crisis* by Stewart Udall, published in 1963, was broader in its denunciation of the continuing prodevelopment trend and was one of several books and articles that appeared in the popular press by the mid 1960's alerting the public to the need for an environmental ethic."²⁰

Opposition as well as support as Corps study progresses

In this more activist decade, the St. Louis District embarked on its restudy of the Meramec River. In addition to input from Federal agencies, state participation was coordinated through the Governor's Advisory Committee, composed of representatives from a number of state agencies: the Water Resources Board, Conservation Commission, State Highway Department, Missouri Boat Commission, Missouri Water Pollution Board, and Missouri State Park Board.²¹ Local interests were also represented, most notably the Meramec Basin Corporation, the St. Louis County Planning Commission, the Jefferson County Planning Committee, and the University of Missouri Task Force Committee, a body that had been established to help five rural counties in the Meramec Basin construct an overall economic development program.²²

Making such a cooperative endeavor work proved challenging and sometimes frustrating. The study depended on input from these agencies and had to respond to the needs of numerous other concerned groups. Although the planners were able to draw upon the conclusions reached in the Washington University study after 1962, that did not solve all of the difficulties.

That many of the interested groups already had their own narrowly focused priorities and often ignored the requirements of a comprehensive plan responding to a multitude of needs proved a tough obstacle. A notable example was the University of Missouri Task Force. In January of 1962, Colonel D'Arezzo wrote that the task force seemed somewhat confused and exhibited "an excessively premature preoccupation with 'recreation impoundments'." He worried that if "their minds [were] already cloudy to the concept of multiple-purpose projects stemming from broad basin or broad regional development planning . . .

encounters with these people would be fruitless and exhausting." He also feared that this group would become like the Meramec Basin Corporation, which had "continually sought to exert the wrong type of pressure on the Corps of Engineers, and which, in too many instances, has set itself up as 'competition,' rather than an advisory agency." D'Arezzo anticipated the growing competition and overlapping of organizations. He suspected that such a complex of interests would lead to a prolonged, seemingly endless study, and would raise the question of the source for funds to carry out such protracted studies.²³

Another problem was exactly how much state and local governments should contribute to the project once it was ready to be implemented. The Federal government, by law, would shoulder the full cost of improvements involving flood control, hydroelectric power, and navigation. But Federal statute also required that state and local governments share the cost of improvements aimed at recreation and water quality. The question of charging state and local entities for recreation was particularly vexing. State authorities balked at paying a substantial share. Their position received a boost when a cabinet-level Recreation Advisory Council established by President Kennedy endorsed the establishment of a system of "National Recreation Areas" to augment present outdoor recreation facilities, especially in localities where recreation demands were not being met. By all the criteria this council outlined, the Meramec Basin plan fit this designation. State and local officials hoped that this would lead to a more favorable computation by the Corps of the Federal contribution to recreation.²⁴ Nevertheless, this dispute persisted. In December 1963, Representative Thomas Curtis of Missouri, a supporter of the Meramec project disillusioned by the seemingly slow pace of the planning, publicly charged that there was a sense of "lethargy among state and local authorities who could not assure the federal government of funds as their part of the cost for water storage and recreation."²⁵

For the most part, these were technical issues that, despite their complexity, could be surmounted. In 1962, the Corps had made enough progress to issue an interim report in the form of an *Information Bulletin*. At the time of its release, Colonel D'Arezzo addressed a joint meeting of the Society of American Engineers, the Engineers Club of St. Louis, and the American Society of Safety Engineers and optimistically summarized the planning process. He pointed out that initially 35 dam sites had been considered for major impoundments, including the 6 suggested in the Washington University study. In a process he described as "survival of the fittest," one after another was eliminated because it could not make the grade. As of April, the original 35 had been reduced to 8. The "strongest horse in the race" seemed to be the Meramec State Park Reservoir. Also, 253 possible headwater sites had been reduced to 27 for field study.²⁶

D'Arezzo's progress report encouraged many that at last a workable plan was within reach. But as this and other information was revealed, a relatively quiet opposition, which up to this point had been scattered and willing to wait and see, began to coalesce. In April

1963, 80 residents of St. Louis County and the upper basin formed the Meramec Rivers Association. Many were previous members of the Meramec Basin Corporation who had become disillusioned with the direction of the planning. Organized to oppose the Corps plan, its spokesman was Richard W. Horner, the son of W.W. Horner, who had played such an instrumental role in the 1949 plan.²⁷ The group returned to the often-argued contention that there were more satisfactory alternatives to the Corps' system of dams and reservoirs.

Some opponents were stubborn and persistent in their determination to derail the progress made to date. In March, D'Arezzo had been approached by a future member of the Association, William C. Schock, who extolled the basin's natural beauty and recreational value. After meeting with Schock, D'Arezzo, reflecting the frustration of many within the St. Louis District (which would go unexpressed publicly in the future), declared that he did not want to pursue the matter with Mr. Schock further "since his mind is so made up he is fated to be taught only by experience—not by me."²⁸

Other opponents criticized the Corps' efforts in more analytical fashion. Donald J. Volk, one of the authors of the Washington University study, in August of 1963, described the Corps plan as "unsound and wasteful." He echoed the concern of many others in the Meramec Rivers Association that the Corps provided "no real improvement in the lower reaches of the Meramec where improvement is more needed." He urged that, consonant with the Washington University proposals, one large reservoir be constructed as close to St. Louis as possible, that some smaller reservoirs be situated close to strategic towns, that the free-flowing streams of the Meramec Basin be preserved, and that the plan be truly comprehensive and flexible, adaptable to the changing needs of the area as they developed.²⁹ Richard Horner seconded Volk's opinion. Horner wrote to Colonel James Meanor, D'Arezzo's successor as District Engineer, during the summer of 1963, inviting Meanor to float the upper Meramec with him in the hope that the Colonel would come to appreciate its natural beauty and not needlessly destroy it.³⁰

Interestingly, in the midst of all this criticism, two contrasting interpretations of the Washington University study were surfacing. The Corps believed that it was effectively incorporating the recommendations of that study, which had concentrated on regional economic development, into its own planning. Indeed the Washington University researchers had considered six possible reservoir sites with accompanying smaller reservoirs. The Meramec Rivers Association, however, as reflected in the criticisms of Volk and Horner, had become disillusioned with the Meramec Basin Corporation and its continued endorsement of Corps planning. They read something different in the Washington University analysis and emphasized that most of the development, flood damage, and need for recreation, existed in the already defiled lower reaches of the Meramec close to St. Louis. Furthermore, the pressing need was for recreational opportunities to satisfy the St. Louis population. They believed, therefore, that to be truly effective, any large reservoir would have to be as close as possible to the urban population. They did not

necessarily oppose a reservoir. In fact, they endorsed one near St. Louis, thus preserving the natural beauty and remaining wilderness of the upper Meramec Valley.

Unlike the Association's position, the Meramec Basin Corporation in 1963 backed the developing Corps plan. Admitting that it was too soon to be specific, the group still exuded optimism. James F. Gamble, at that time its executive vice president, rejoiced that the Corps' effort was more popularly received than the 1949 study. He attributed this to the fact that the earlier study had primarily considered the Meramec as it affected navigation on the Mississippi. "This plan, on the other hand," he said, "is for the benefit of the Meramec Valley and any benefits for the Mississippi would be coincidental."³¹

The wait-and-see attitude of critics combined with strong positive support for reservoirs encouraged the Corps. By the latter part of 1963 the plan was ready to unveil to the public for its reaction, before transmitting the recommendations in final form to the Division Office at Vicksburg. In November, the Corps notified the public of an open meeting at St. Clair, Missouri on December 18, 1963. Shortly thereafter, the St. Louis District mailed synopses of the proposal to about 5000 interested individuals and groups for their consideration.³²

Colonel Meanor chaired the St. Clair meeting and began with an outline of the plan's purpose. He stressed that he was there both to inform and to solicit public input before deciding what elements of the plan would be recommended for authorization and construction in the near future. He then opened the floor for comments from the approximately 480 who had gathered. Of those who spoke, 42 voiced support, 11 opposed, and one was neutral.³³ Many of the Federal officials or their representatives who attended backed the plan, including Senator Stuart Symington, who sent a letter, and Representative Clarence Cannon, who personally gave an impassioned speech in which he declared that "we are going to dam the Meramec!"³⁴ A representative from the governor's office read a statement from the governor acknowledging the plan's value, but expressing reservations about the cost-sharing requirements.³⁵

On the whole, the meeting was low-key with a large dose of cautious support. Meanor later recalled that there was little indication of future serious opposition. Most of the people who attended were landowners intent on protecting their own private interests, and were thus not yet irreconcilable opponents.³⁶ Many attendees remained opposed, but the impassioned outpouring of opposition that characterized later public meetings was lacking. Richard Horner, for example, repeated his past criticisms that the Corps plan was too large in scope, too costly, and destructive of natural assets. He charged that the plan went beyond the Washington University recommendations. He was supported by Donald Volk, who maintained that the public meeting was premature since all the details were not yet available. He characterized his position in this way:

The questions being asked at this hearing, if they are: "Are you in favor of this plan as it stands?" My answer is, no. But if the question is: "Are you in favor of getting something done to meet the needs of the area?" Then, my answer is, yes.³⁷

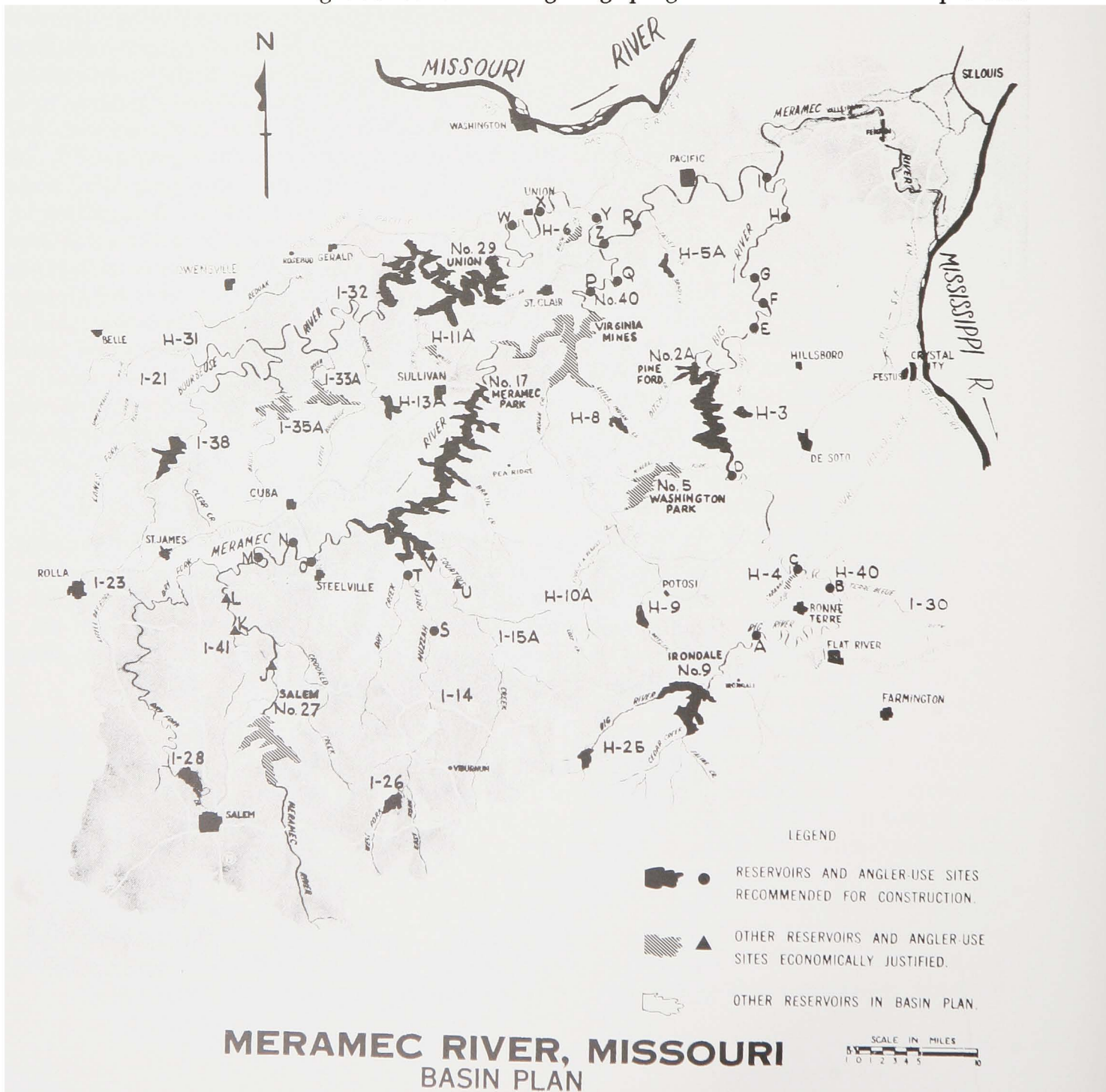
After the day long session, the St. Louis District put the report in final form for submission to Division Headquarters in Vicksburg, Mississippi. It used the Washington University study as its starting point, drawing heavily upon its analysis of basin economic development and population trends. Despite this, there was a notable difference that led to the Corps' differing recommendations. The Washington University group had been primarily concerned with regional economic development. Consequently, recreation became the primary mode to foster that growth and vitality. Such was not the case with the St. Louis District's proposal. Congress had mandated a multipurpose development, so even though recreation was stressed, it could not stand alone as a justification for such a major undertaking. The resolution that the Committee on Public Works issued on April 6, 1960, had ordered a restudy to see if existing plans should be modified in any way "in the interest of flood control, water conservation, navigation, and other purposes."³⁸ Recreation was not singled out, but was one of the "other purposes," and was superseded by, among other things, flood control. Responding to the Congressional resolution, the Corps plan listed the features it addressed in the following order: reservoir storage for regulation of dependable flows for water supply and water quality control; reservoir storage for flood control; local flood protection; programs for controlling and regulating the use and development of flood plains where other means of flood prevention were not economically feasible; development of the recreation potential of project land and water; assistance in reorientation of the upper basin's economy.³⁹ These were not intended to prioritize the purposes, but they do suggest that this proposal was more multi-dimensional than the Washington University study.

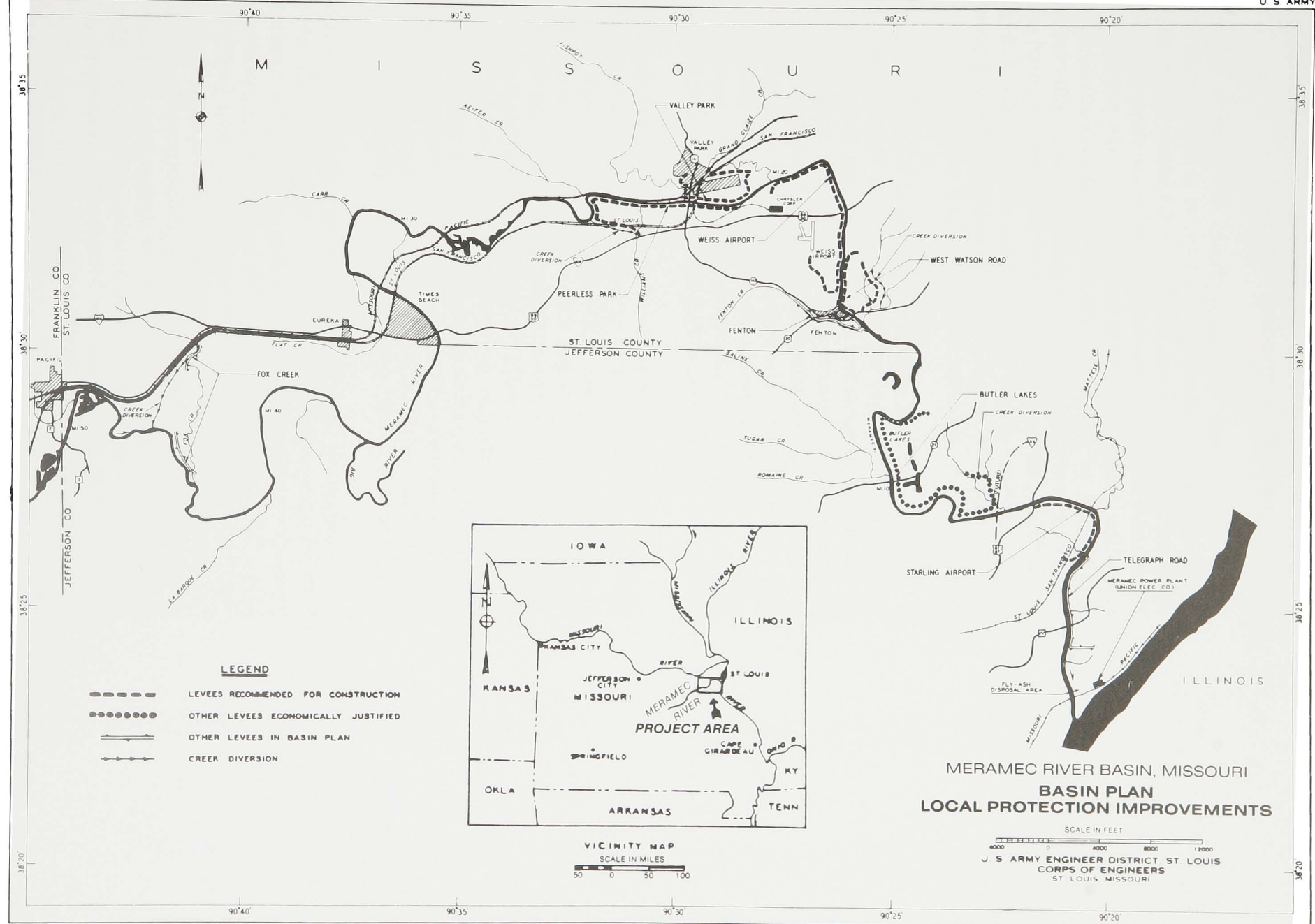
The Corps' stated objective was "to devise a sound program for the development of water and related land resources to meet the immediate and long-term needs of the basin in an orderly, efficient, and timely manner."⁴⁰ Economic stimulus for the area was not the only objective, and recreation was only one of many components, although recreation was receiving more attention in the 1960's.

Because of the more comprehensive starting point, the Corps' suggestions were more ambitious. To begin with, it proposed a system of 31 reservoirs — 7 mainstream, 12 tributary, and 12 headwater — at a total cost of \$216,820,000. Nine local flood protection projects, at an estimated cost of \$18,688,000, were also recommended. Added to this, 26 angler-use sites to provide access and stopover points for float fishing were included at the request of the U.S. Fish and Wildlife Service, at an estimated cost of \$720,000. Looking to the future, the plan suggested that potential hydroelectric generating facilities be considered for the main reservoirs if the demand for power ever warranted.

According to Corps estimates, the Meramec Park Lake, the first reservoir targeted for construction in the Meramec Basin development, would provide about 175 miles of shoreline and about 26,000 acres for camping, picnicking, hiking, and other such activities. The lake would promote fishing and water skiing and would generate 3.8 million visitor days annually, an increase over the 750,000 annual visitor days expected if the area remained in its natural state.⁴¹

The entire plan was to be implemented in stages. Phase One included improvements that were needed immediately and were economically justified; Phase Two, improvements that were economically justified, but for which there were no foreseeable immediate needs; and Phase Three, projects without immediate economic justification that might be needed in a long-range program. Immediate land acquisition





for reservoirs and angler use sites was recommended to prevent incompatible development. (See Table 2.2 for the breakdown of the reservoir construction according to phases.)

The first was the critical phase. In it, the St. Louis District advocated the immediate construction of 4 mainstream reservoirs (Meramec Park, Pine Ford, Irondale, and Union), 3 tributary stream reservoirs, 6 headwater reservoirs, 21 angler-use sites, and 5 local flood protection projects. The estimated cost of this phase alone was \$129,156,000, of which \$118,095,000 would be Federal funds and \$11,061,000 would be nonfederal, including reimbursable costs amounting to \$8,731,000 for water supply and recreation. Annual operation and maintenance cost of this first phase was estimated at \$1,738,000, of which \$1,425,500 would be contributed by the Federal government and \$312,500 would come from nonfederal sources.

State and local entities were required to make certain guarantees, including that they repay their share of the costs and that they provide land easements and rights of way. They had to ensure proper maintenance and operation of all improvements and pollution control of the streams by adequate treatment of wastes at their sources. They were required to protect channels downstream from the reservoirs from any encroachment adversely affecting the system's operation. Finally, they had to hold the U.S. Government free from all water-rights claims resulting from construction and operation of these reservoirs.⁴²

These provisions mirrored the Corps' overall findings. Like the Washington University study, the Corps' analysis made a distinction between the St. Louis region and the upper part of the basin. It anticipated little significant long-range change in land use except around St. Louis. As it pointed out, most of the viable farm land was already cropped and it did not anticipate significant land acquisition for urban and industrial development in the upper Meramec. However, the St. Louis region, it noted, continued to expand, as indicated by the construction of a \$50 million Chrysler assembly plant near Valley Park; the St. Louis County Planning Commission was working to control the bottomland and flood plain development.⁴³

Regarding water supply and quality, the Corps predicted that between 1970 and 2070, there would be sufficient groundwater to meet the needs in the upper basin, but the demands would grow in the lower basin. Water quality would likewise be an expanding problem there. The Corps concluded that there was little economic justification for hydroelectric power since the availability of cheap coal made thermal power more feasible. Navigation received scant consideration because the report anticipated little foreseeable demand for development of Meramec River navigation. Little benefit for Mississippi River navigation could be attributed to the Meramec's development, although some incidental benefits would accrue.⁴⁴

TABLE 2.2**Pertinent Reservoir Data (1964 plan)**

| Reservoir | No. | Height of dam (ft.) | Total storage (ac. ft.) | Area normal pool (ac.) | Shoreline normal pool (mi.) |
|------------------------|---------|---------------------------|-------------------------------|------------------------------|-----------------------------------|
| PHASE 1 | | | | | |
| Pine Ford | (#2A) | 141 | 285,000 | 3,700 | 60 |
| Irondale | (#9) | 127 | 161,000 | 4,600 | 65 |
| Meramec Park | (#17) | 170 | 1,000,000 | 12,600 | 175 |
| Union | (#29) | 151 | 528,000 | 6,600 | 100 |
| West Fork Huzzah Creek | (I-26) | 121 | 26,000 | 630 | 15 |
| Spring Creek | (I-28) | 79 | 26,000 | 900 | 18 |
| Bourbeuse River | (I-38) | 75 | 39,000 | 850 | 15 |
| Dry Creek | (H-3) | 43 | 2,750 | 100 | 3 |
| Brady Creek | (H-5A) | 43 | 950 | 50 | 2 |
| Little Indian Creek | (H-8) | 59 | 6,000 | 200 | 5 |
| Bates Creek | (H-9) | 47 | 2,200 | 100 | 2 |
| Boone Creek | (H-13A) | 54 | 5,600 | 150 | 4 |
| Big River | (H-25) | 66 | 2,700 | 100 | 3 |
| PHASE 2 | | | | | |
| Washington Park | (#5) | 147 | 147,000 | 3,700 | 55 |
| Virginia Mines | (#40) | 92 | 110,000 | 5,200 | 70 |
| Salem | (#27) | 145 | 161,000 | 3,400 | 50 |
| Little Bourbeuse River | (I-33A) | 92 | 26,000 | 1,450 | 22 |
| Brush Creek | (I-35A) | 74 | 26,000 | 1,400 | 20 |
| Cabanne Course | (H-4) | 66 | 2,100 | 100 | 3 |
| Birch Creek | (H-6) | 51 | 2,800 | 200 | 4 |
| Winsell Creek | (H-11A) | 48 | 3,100 | 100 | 3 |
| PHASE 3 | | | | | |
| Huzzah Creek | (I-14) | 111 | 35,000 | 460 | 9 |
| Courtois Creek | (I-15A) | 102 | 38,000 | 620 | 10 |
| Peavine Creek | (I-21) | 51 | 8,600 | 220 | 4 |
| Little Dry Fork Creek | (I-23) | 80 | 12,700 | 950 | 15 |
| Terre Bleue Creek | (I-30) | 66 | 7,100 | 270 | 14 |
| Redoak Creek | (I-32) | 63 | 26,000 | 2,050 | 26 |
| Benton Creek | (I-41) | 73 | 10,300 | 230 | 6 |
| Lost Creek | (H-10A) | 47 | 1,200 | 50 | 2 |
| Dry Fork Creek | (H-31) | 45 | 1,800 | 200 | 3 |
| Coonville Creek | (H-40) | 53 | 900 | 50 | 2 |

Source: 1964 *Information Bulletin*.

This left flood control and recreation as the overriding emphases. The Corps was less inclined to de-emphasize flood damage, especially in the upper Meramec, than the Washington University group had. According to the District's analysis, such measures as flood plain zoning had worked to alleviate non-agricultural flood damages for the immediate future; but crop yields were expected to increase, leading to "agricultural flood damages [continuing] to be the major flood problem in the basin." The District estimated that floods would annually inundate 129,400 acres, 10,500 acres of this caused by Mississippi River backwater. In economic terms, this translated to annual flood damages projected at \$2,645,500. Valley Park and Pacific, with 1960 populations of 3,452 and 2,795 respectively, were the major urban areas affected by flooding. (See Tables 2.3 and 2.4 for a breakdown of these figures.) Flood control stood as a critical component in the benefit-cost figures used to justify the plan.⁴⁵

Despite the Corps' effort to be multidimensional, recreation inevitably figured prominently in assessing the plan's benefits, although justification for projects could not rest on this factor alone. According to Corps predictions, by 1970 existing recreational facilities would be able to accommodate only 40 percent of the recreational demand; by 2020, only about 33 percent; and by 2070, less than 30 percent. "To meet these future demands to the fullest extent possible," the Corps advised, "water related facilities associated with reservoir development are urgently needed."⁴⁶ The expected expansion in fishing and hunting enthusiasts coupled with the rather stable availability of outlets for these activities reinforced the recreational argument. Besides, expanding recreational facilities had the beneficial residual effect of stimulating the rural economies. According to the report, "one principal source of new employment is that associated with recreation and tourist development through the construction of reservoirs."⁴⁷ Such a consideration was critical to the depressed rural communities of the basin.

All of these were ultimately factored into a benefit-cost comparison. Having determined the advantages of the projects in all categories, an economic value was assigned and weighed against the cost of construction and the annual maintenance and operating costs. The final decision to eliminate a reservoir from consideration or recommend it for construction hinged on this comparison. Especially in Phase One, only projects that had a favorable benefit-cost ratio were recommended for authorization. The benefits coming from each of the reservoirs were apportioned according to how much each contributed to flood control, recreation, and other factors, as befit the multipurpose nature of the planning. (Table 2.5 summarizes anticipated benefits of the seven mainstream reservoirs.)



James Gamble and Jack Masters of the Meramec Basin Association visiting the dam site.

(From the Collections of The St. Louis Mercantile Library Association)

TABLE 2.3

Average Annual Flood Damages (Present Conditions)

| Type of Damage | Meramec River - main stem Big River | | | | Total Meramec River and Tributaries ¹ | Big River | Big River Tribu- taries | Total Big River and Tribu- taries | Bourbeuse River | Bourbeuse River and Tribu- taries | Total Bourbeuse River and Tribu- taries | Total Flood Plain |
|----------------------------|--|--------------------|--------------------|--------------------|---|--------------------|----------------------------------|--|--------------------|--|---|------------------------|
| Agriculture | \$91,300 | \$86,200 | \$188,600 | \$170,600 | \$536,700 | \$229,800 | \$52,700 | \$282,500 | \$151,900 | \$55,400 | \$207,300 | \$1,026,500 |
| Urban | 317,000 | 8,600 | 65,000 | 38,600 | 429,200 | 1,000 | 0 | 1,000 | 500 | 0 | 500 | 430,700 |
| Rural farm sets | 3,100 | 1,200 | 7,400 | 24,700 | 36,400 | 19,500 | 3,100 | 22,600 | 4,500 | 7,500 | 12,000 | 71,000 |
| Clubhouses | 27,800 | 3,000 | 5,600 | 1,300 | 37,700 | 16,200 | 800 | 17,000 | 4,400 | 0 | 4,400 | 59,100 |
| Roads | 26,400 | 4,400 | 13,000 | 7,300 | 51,100 | 18,800 | 2,700 | 21,500 | 5,000 | 3,300 | 8,300 | 80,900 |
| Railroads | 39,300 | 5,500 | 1,900 | 0 | 46,700 | 1,700 | 0 | 1,700 | 3,300 | 0 | 3,300 | 51,700 |
| Bridges | 600 | 300 | 900 | 3,600 | 5,400 | 5,000 | 1,200 | 6,200 | 1,000 | 2,900 | 3,900 | 15,500 |
| Fences | 13,500 | 11,500 | 27,800 | 22,900 | 75,700 | 26,600 | 6,100 | 32,700 | 21,300 | 9,600 | 30,900 | 139,300 |
| Equipment and livestock | 1,800 | 1,400 | 2,700 | 0 | 5,900 | 3,700 | 800 | 4,500 | 600 | 0 | 600 | 11,000 |
| Erosion | 1,800 | 1,400 | 2,700 | 3,600 | 9,500 | 2,900 | 700 | 3,600 | 2,400 | 1,300 | 3,700 | 16,800 |
| Total Say | 522,000 523,000 | 123,500 123,000 | 315,600 316,000 | 272,600 273,000 | 1,234,300 1,235,000 | 325,200 325,000 | 68,100 68,000 | 393,300 393,000 | 194,900 195,000 | 80,000 80,000 | 274,900 275,000 | 1,902,500 1,903,000 |

* Exclusive of Big and Bourbeuse Basins.

Source: *Comprehensive Study, Vol. I: Main Report.*

TABLE 2.4

Projected Average Annual Flood Damages Without Improvement

| Type of Damage | Meramec River - main stem | | | | | Big River | Big River Tributaries | Big River and Tributaries | Bourbeuse River | Bourbeuse River and Tributaries | Total Bourbeuse River and Tributaries | Total Flood Plain |
|-------------------------|------------------------------|--------------------|-----------------------|---------------------------|--|-----------|-----------------------|---------------------------|-----------------|---------------------------------|---------------------------------------|-------------------|
| | Below Big River ¹ | To Bourbeuse River | Above Bourbeuse River | Meramec River Tributaries | Total Meramec River and Tributaries ² | | | | | | | |
| Agriculture | \$163,800 | \$154,500 | \$320,800 | \$260,500 | \$899,600 | \$406,300 | \$85,000 | \$491,300 | \$275,500 | \$103,100 | \$378,600 | \$1,769,500 |
| Urban | 317,000 | 8,600 | 65,000 | 38,600 | 429,200 | 1,000 | 0 | 1,000 | 500 | 0 | 500 | 430,700 |
| Rural farm sets | 3,100 | 1,200 | 7,400 | 24,700 | 36,400 | 19,500 | 3,100 | 22,600 | 4,500 | 7,500 | 12,000 | 71,000 |
| Clubhouses | 27,800 | 3,000 | 5,600 | 1,300 | 37,700 | 16,200 | 800 | 17,000 | 4,400 | 0 | 4,400 | 59,100 |
| Roads | 26,400 | 4,400 | 13,000 | 7,300 | 51,100 | 18,800 | 2,700 | 21,500 | 5,000 | 3,300 | 8,300 | 80,900 |
| Railroads | 39,300 | 5,500 | 1,900 | 0 | 46,700 | 1,700 | 0 | 1,700 | 3,300 | 0 | 3,300 | 51,700 |
| Bridges | 600 | 300 | 900 | 3,600 | 5,400 | 5,000 | 1,200 | 6,200 | 1,000 | 2,900 | 3,900 | 15,500 |
| Fences | 13,500 | 11,500 | 27,800 | 22,900 | 75,700 | 26,600 | 6,100 | 32,700 | 21,300 | 9,600 | 30,900 | 139,300 |
| Equipment and livestock | 1,800 | 1,400 | 2,700 | 0 | 5,900 | 3,700 | 800 | 4,500 | 600 | 0 | 600 | 11,000 |
| Erosion | 1,800 | 1,400 | 2,700 | 3,600 | 9,500 | 2,900 | 700 | 3,600 | 2,400 | 1,300 | 3,700 | 16,800 |
| Total Say | 595,100 | 191,800 | 447,800 | 362,500 | 1,597,200 | 501,700 | 100,400 | 602,100 | 318,500 | 127,700 | 446,200 | 2,645,500 |
| | 595,100 | 192,000 | 448,000 | 362,000 | 1,597,000 | 502,000 | 100,000 | 602,000 | 318,000 | 128,000 | 446,000 | 2,645,000 |

¹ Approximately 10,500 acres are subject to flooding by backwater from high Mississippi River stages. Damages chargeable to Mississippi River backwater amount to \$29,400 to crops and \$88,000 to property.

² Exclusive of Big and Bourbeuse Basins.

Source: *Comprehensive Study, Vol. I: Main Report.*

When these were balanced against the annual charges or costs of the individual projects, a benefit-cost ratio was derived. (Table 2.6 summarizes the benefit-cost breakdown of mainstream, tributary stream, and headwater reservoirs.) All seven major reservoirs recommended for construction had positive benefit-cost ratios ranging from 1.03:1 for the Washington Park Reservoir to 2.5:1 for the Union Reservoir. The Union Reservoir had the greatest benefit ratio, but the Meramec Park Lake, which became the first targeted for construction and thus had the dubious distinction of being the heart of the controversy, had the greatest net annual benefits.⁴⁸ The figures compiled clearly indicate that recreation had assumed a significant place in the evaluation of both project's feasibility. Nearly 47 percent of the Meramec Reservoir's and 31 percent of the Union Reservoir's total net benefits came from recreation. However, on the pivotal issue of flood control, the Meramec Park Reservoir had a 1.91:1 benefit-cost ratio compared with 1.84:1 for the Union Reservoir.⁴⁹

The recommendations made by the St. Louis District were supported by an exhaustive examination of all the factors affected by water resource development. The comprehensive study completed, the District forwarded it to the Lower Mississippi Valley Division in January 1964. By May, the Division had approved the plan, including the 4 first phase mainstream reservoirs, 3 tributary reservoirs, 6 headwater reservoirs, 21 angler-use sites, and 5 local flood protection projects. The 4 mainstream reservoirs were those with the greatest cost-benefit ratio of all 7 considered, with the exception of the Virginia Mines Reservoir. That was eliminated from Phase One because it provided no measurable flood control or water supply benefits.⁵⁰

The District incorporated these recommendations in the *Comprehensive Basin Study Summary Report* of June 1965. Following appropriate review and approval of the Lower Mississippi Valley Division, the Corps' Board of Engineers for Rivers and Harbors approved the study, but recommended deferring the levee projects until reservoirs were constructed. The Chief of Engineers concurred with the Board's decision and transmitted the study through the Secretary of the Army to the House Committee on Public Works and to the House of Representatives by October 1966. The study was printed as House Document 525, 89th Congress, 2nd Session. The Meramec Park Lake and Union Reservoirs had been approved by the Flood Control Act of 1938. Now the Flood Control Act of November 7, 1966, authorized three additional reservoirs, Pine Ford, Irondale, and I-38. The program was scheduled to be implemented step by step, beginning with the Meramec Park Lake Reservoir.⁵¹

Estimates of the recreational benefits for the five reservoirs ultimately recommended were very positive. The five reservoirs together provided 27,850 acres of water surface and 400 miles of shoreline for recreation. The facilities initially developed at these reservoirs were projected to provide for 2,270,000 visitor days annually. State, local, and private development were also expected to contribute to area development, leading to the reservoirs satisfying three-fourths of the recreational demand for the region by 1970. With full development, it was estimated, the reservoirs might handle 12 million visitor days annually.⁵²

TABLE 2.5**Summation of Benefits -- Main Stream Reservoirs**

| Reservoirs | Flood Control | | | Water Quality | Water Supply | Recreation | | | Area Reorien- tation | Navi- gation | Subtotal | Negative Benefits | Total Net Benefits |
|----------------------------|---------------|-------------|-----------|------------------|-----------------|-------------|-----------|----------------------|----------------------------|-----------------|-------------|----------------------|-----------------------|
| | Total | Mississippi | Meramec | | | Total | General | Fishing & Hunting | | | | | |
| Pine Ford (2A) | \$551,700 | \$91,200 | \$460,500 | \$120,100 | \$29,500 | \$1,110,900 | \$912,000 | \$198,900 | \$557,100 | \$10,700 | \$2,380,000 | \$5,900 | \$2,374,100 |
| Washington Park (5) | - | - | - | 193,900 | 44,200 | 287,900 | 192,000 | 95,900 | 217,000 | 16,100 | 759,100 | 300 | 758,800 |
| Irondale (9) | 60,900 | - | 60,900 | 448,100 | 40,400 | 500,700 | 377,600 | 123,100 | 309,900 | 14,800 | 1,374,800 | 800 | 1,374,000 |
| Virginia Mines (40) | - | - | - | 20,300 | - | 1,650,400 | 1,280,000 | 370,600 | 890,700 | - | 2,561,600 | 2,400 | 2,559,200 |
| Meramec Park (17) | 785,700 | 284,200 | 501,500 | 546,400 | 143,300 | 2,197,100 | 1,446,600 | 750,500 | 957,000 | 57,100 | 4,686,600 | 8,300 | 4,678,300 |
| Salem (27) | 74,100 | - | 74,100 | 44,500 | 17,200 | 418,400 | 320,000 | 98,400 | 284,700 | - | 838,900 | - | 838,900 |
| Union (29) | 450,700 | 142,400 | 308,300 | 431,900 | 692,900 | 975,200 | 720,000 | 255,200 | 567,200 | 47,300 | 5,165,200 | 5,800 | 3,159,400 |
| Total benefits, | 1,923,100 | 517,800 | 1,405,300 | 1,805,200 | 967,500 | 7,140,800 | 5,248,200 | 1,892,600 | 3,783,600 | 146,000 | 17,766,200 | 23,500 | 15,742,700 |

Source: *Comprehensive Study, Vol. I: Main Report.*

TABLE 2.6**Benefit-Cost Ratios**

| | Net Benefits | Annual Charges¹ | Benefit-Cost Ratio |
|------------------------------------|-------------------------|---------------------------------------|-------------------------------|
| Main Stream Reservoirs | | | |
| 2A, Pine Ford | \$2,374,100 | \$1,200,800 | 2.0:1 |
| 5, Washington Park | 758,800 | 737,500 | 1.03:1 |
| 9, Irondale | 1,374,000 | 676,100 | 2.0:1 |
| 40, Virginia Mines | 2,559,200 | 1,051,200 | 2.4:1 |
| 17, Meramec Park | 4,678,300 | 1,941,800 | 2.4:1 |
| 27, Salem | 838,900 | 699,100 | 1.2:1 |
| 29, Union | 3,159,400 | 1,244,800 | 2.5:1 |
| Tributary Stream Reservoirs | | | |
| 1-14, Huzzah Creek | 196,500 | 312,700 | 0.6:1 |
| I-15A, Courtois Creek | 273,500 | 320,300 | 0.85:1 |
| I-21, Peavine Creek | 95,400 | 145,900 | 0.7:1 |
| I-23, Little Dry Fork Creek | 373,700 | 264,500 | 1.4:1 |
| I-26, West Fork Huzzah Creek | 183,600 | 202,300 | 0.91:1 |
| I-26 (with I-14 out) | 225,500 | 202,300 | 1.1:1 |
| I-28, Spring Creek | 393,000 | 259,800 | 1.5:1 |
| I-28, (with I-23 out) | 463,200 | 259,800 | 1.8:1 |
| I-30, Terre Bleue Creek | 268,000 | 207,200 | 1.3:1 |
| I-32, Redoak Creek | 250,800 | 241,400 | 1.04:1 |
| I-33A, Little Bourbeuse River | 324,400 | 245,900 | 1.3:1 |
| I-33A (with I-32 out) | 328,400 | 245,900 | 1.3:1 |
| I-35A, Brush Creek | 254,600 | 250,600 | 1.02:1 |
| I-35A (with I-32 out) | 260,900 | 250,600 | 1.04:1 |
| I-38, Bourbeuse River | 590,200 | 343,800 | 1.7:1 |
| I-41, Benton Creek | 34,800 | 152,800 | 0.2:1 |
| Headwater Reservoirs | | | |
| H-3, Dry Creek | 92,400 | 30,600 | 3.0:1 |
| H-4, Cabanne Course | 52,800 | 40,500 | 1.3:1 |
| H-5A, Brady Creek | 55,400 | 26,400 | 2.1:1 |
| H-6, Birch Creek | 160,800 | 49,300 | 3.3:1 |
| H-8, Little Indian Creek | 171,500 | 55,700 | 3.1:1 |
| H-9, Bates Creek | 55,000 | 30,400 | 1.8:1 |
| H-10A, Lost Creek | 40,600 | 25,800 | 1.6:1 |
| H-11A, Winsell Creek | 117,600 | 31,100 | 3.8:1 |
| H-13A, Boone Creek | 150,900 | 45,400 | 3.3:1 |
| H-25, Big River | 32,900 | 30,500 | 1.1:1 |
| H-31, Dry Fork Creek | 11,800 | 25,400 | 0.5:1 |
| H-40, Coonville Creek | 76,900 | 33,000 | 2.3:1 |

¹Annual charges reflect economic costs.

Source: *Comprehensive Study, Vol. I: Main Report.*

The project moved even closer to fruition when the state of Missouri compromised on the disputed state and local contribution to certain components of the plan and agreed to accept its part of the cost-sharing responsibilities as required by the Federal legislation. Missouri House Bill No. 95 was approved by Governor Warren E. Hearnes in 1965. It authorized the Missouri Water Resources Board to grant state assurances of payment for water supply storage in water resource projects. A fund was established from which payments were to be made under subsequent contracts between the state and Federal government for water supply storage. By February 1968, the state of Missouri was informed that these assurances were acceptable.⁵³

It now seemed that the Meramec Basin Project was destined to become a reality. But the controversy was just beginning. Funds for actual construction were eventually delayed due to the exigencies of the Vietnam War.⁵⁴ Preconstruction planning funds for the Meramec Park Lake were appropriated slowly, amounting to approximately \$1.2 million between fiscal years 1965 and 1967. Between 1968, when the project was placed in the "Real Estate Acquisition Only" category, and fiscal year 1972, \$5,497,600 was allocated for acquisition of real estate. By July 1973, about 39 percent of the property required for the project had been purchased.⁵⁵

To this point, much of the opposition was still restrained, and there seemed to be a strong base of support, even if, as reflected in the activities of the Meramec Rivers Association, doubts lingered about the Corps of Engineers' plan. The planners in the St. Louis District themselves considered this a necessary and feasible project. They based their judgement on their investigation of the benefits these reservoirs would provide for flood control, as well as the economic and recreational benefits for both the rural communities and the St. Louis region. Politicians like Curtis Cannon (after Cannon's death, his successor Richard Ichord), and Symington represented a strong base of support among the Missouri Congressional delegation, an encouraging factor. However, this would change as the plan was slowly implemented. Over time, many changed their perspective and became uneasy about such a large-scale undertaking. Opposition developed in some sectors, such as the environmental community, that had not yet been very vocal. The Corps again found itself, as in the 1940's, in a dilemma. It was mandated by Congress to perform certain functions. Economic and engineering data made a convincing case for the benefits of reservoirs. Many Corps personnel had made a real commitment in terms of time and effort to preparing this proposal. But now, as the most visible agent of the Federal government, it became embroiled in an increasingly volatile controversy.

Notes-Chapter 2

1. Beatrice H. Holmes, *A History of Federal Water Resources Programs, 1800-1960* (Washington, D.C.: GPO, 1972), p. 25.

2. Ibid., pp. 22-25 and 32.

3. U.S. Army Corps of Engineers, St. Louis District, *Comprehensive Basin Study*, Vol. I: *Main Report*, Jan. 1964, p. 13 (hereinafter cited as *Comprehensive Basin Study*); "Officers Meet on US Aid in Flood Disaster," *St. Louis Post -Dispatch*, June 18, 1957 (Hereinafter cited as *P-D*).

4. U.S. Army Corps of Engineers, St. Louis District, *A Chronology of the Corps of Engineers and Missouri's Meramec Basin*, 1984, pp. 11-12 (hereinafter cited as *Meramec Chronology*).

5. Edward L. Ullman, Ronald R. Boyce, and Donald J. Volk, *The Meramec Basin Water and Economic Development: Report of the Meramec Basin Research Project to the Meramec Basin Corporation*. 3 vols., 1962. Much of the following information is taken from Vol. I: *Summary and a Program of Water Development Proposals*.

6. Ibid., p. 19.

7. Ibid., pp. 24-40.

8. Ibid., pp. 41-42, 50.

9. Ibid., pp. 42-46

10. Ibid., p. 49.

11. Ibid., pp. 49-54.

12. Ibid., pp. 56-57.

13. Ibid., pp. 71-74.

14. "Recreation Area Urged for Meramec River Basin," *St. Louis Globe-Democrat*, Feb. 23, 1962 (hereinafter cited as *G-D*); "Report on the Meramec," *P-D*, Feb. 21, 1962; "Meramec River Valley Development Called Great Benefit to Area," *G-D*, Mar. 20, 1962.

15. "Meramec Park Lake Chronology of Events Leading to Present Status," Nov. 2, 1973; *Meramec Chronology*, pp. 11-14; Edward E. Middleton, "Interagency Coordination: The Evolution of Comprehensive Integrated Planning in the Army Corps of Engineers," (unpublished Ph.D. dissertation, Indiana University), 1985, p. 188.

16. Clarence Cannon had been a critic of a Meramec Reservoir as early as the late 1930's. See for example Cannon to General M.C. Tyler, Acting Chief of Engineers, Aug. 16, 1938, R.G. 77, Office of Chief of Engineers, Civil Works, 1923-42, Rivers and Harbors, Meramec River, File 7245, National Archives, Suitland, Maryland; Tyler to Cannon, Aug. 23, 1938, *ibid.*

17. "Meramec Park Lake Chronology," Nov. 2, 1973, District Historical Files; *Meramec Chronology*, pp. 15-21; for reference to Representative Cannon's shift in positions, see "Army Changes Tactics, Cannon Switches Stand," *G-D*, April 8, 1960.

18. U.S. Army Corps of Engineers, St. Louis District, *Report on Meramec River Basin Missouri*, Record of Public Hearings, April 7, 1961. The comments of Elizabeth S. Foster, the tree farmer and dam opponent, are found on pp. 84-86; misgivings about Corps activities were expressed by Russell F. Jacques, Director, Friends of the Land of Missouri, on p. 95; Monsignor Hildner's endorsements are on pp. 64-66.

19. Senate Doc. 97, 87th Congress, 2d Session, "Policies, Standards, and Procedures in the Formulation, Evaluation, and Review of Plans for Use and Development of Water and Related Land Resources," May 29, 1962; Middleton, "Interagency Coordination," pp. 195-96; Beatrice H. Holmes, *History of Federal Water Resources Programs and Policies, 1961-70* (Washington, D.C.: GPO, 1979), pp. 43-45.

20. Middleton, "Interagency Coordination," pp. 195-200.

21. U.S. Army Corps of Engineers, St. Louis District, *The Meramec River Basin Information Bulletin*, Sept. 1962, p. 5.

22. *Ibid.*, pp. 6-7; for an expression of the interest of this University of Missouri Task Force, see Hugh Denny, Chairman, University Task Force Committee for Area Development, to Walter Lawlor, et. al., Dec. 22, 1961, District Historical Files.

23. Colonel D'Arezzo, District Engineer, to ED, Jan. 5, 1962, Folder: A.R.A.-U. of Missouri Task Force Committee, District Historical Files.

24. Press Release, Apr. 10, 1963, Department of the Interior, Folder: Bureau of Outdoor Recreation-Meramec Basin, District Historical Files; Evan A. Haynes, Field Representative, Department of Interior, Bureau of Outdoor Recreation, to Colonel James Meanor, Apr. 16, 1963, *ibid.*

25. "Rep. Curtis Charges State, Local Officials Lag on Meramec Basin," *G-D*, Dec. 20, 1963.
26. *The Meramec River Basin: Information Bulletin*, Sept. 1962; "Formation of the Plan for Development of the Meramec River Basin," speech by Colonel Alfred D'Arezzo, Apr. 12, 1962, Folder: Meramec—Plans and Briefing, 1960's, District Historical Files.
27. "Group will Oppose Meramec River Plan," *G-D*, Apr. 10, 1963.
28. Colonel D'Arezzo to Gloria, Mar. 21, 1963, Folder: Meramec River Association (1963), District Historical Files.
29. Donald J. Volk, "A Better Program for the Meramec Basin," Aug. 1, 1963, *ibid*.
30. Richard W. Horner to Colonel Meanor, May 14, 1963, *ibid*.
31. "Meramec Basin Group in Accord with Engineers' Progress Report on Dams," *Washington Missourian*, Apr. 19, 1962; "Meramec River Basin Gains More Support from Public," *G-D*, Apr. 19, 1962.
32. *Meramec Chronology*, p. 30.
33. *Ibid*.
34. U.S. Army Corps of Engineers, St. Louis District, *Public Hearings*, Dec. 18, 1963, pp. 36-38.
35. *Ibid.*, pp. 44-53.
36. Interview with Colonel James Meanor, May 26, 1983.
37. Horner's remarks are found in *Public Hearings*, Dec. 18, 1963, pp. 86-92; Volk's are in *ibid.*, pp. 132-133.
38. Division Engineer, U.S. Army Engineer Division, Lower Mississippi Valley, to Chief of Engineers, Jan. 30, 1964, printed in *Comprehensive Basin Study*, Vol. 1, pp. 1-7.
39. Information called for by Senate Resolution 148, 85th Congress, adopted Jan. 28, 1958, published in *ibid*.
40. *Ibid.*, p. 55.
41. "Recreation at Core of Meramec Fuss," *G-D*, Nov. 16, 1976.
42. The preceding plan is summarized from information in *ibid.*, pp. 212-16; U.S. Army Corps of Engineers, St. Louis District, *The Meramec River Basin, Comprehensive Basin Study: Information Bulletin*, pp. 92-93.

43. *Comprehensive Basin Study*, pp. 37-38.
44. *Ibid.*, pp. 43-46, 52-53.
45. *Ibid.*, pp. 26-28, 42-44.
46. *Ibid.*, pp. 50-51.
47. *Ibid.*, pp. 51-54. Report of the Board for Engineers and Harbors to the Chief of Engineers, Jan. 12, 1966, in House Doc. 525, 89th Congress, 2d Session.
48. *Comprehensive Basin Study*, pp. 129-75. This contains an analysis of the benefits versus the costs of the project.
49. *Ibid.*, p. 160.
50. *Ibid.*
51. Middleton, "Interagency Coordination," pp. 190-92; *Meramec Chronology*, pp. 35-38; "Meramec Park Lake Chronology Leading to Present Status," Nov. 2, 1973, District Historical Files; U.S. Army Corps of Engineers, St. Louis District, *Meramec River Basin, Review of Comprehensive Basin Study: Information Bulletin*, July 1965; *Meramec River Basin, Missouri*, House Doc. 525, 89th Congress, 2d Session, Oct. 17, 1966.
52. Report of the Board for Engineers and Harbors to the Chief of Engineers, Jan. 12, 1966, pp. 57-58, in *Meramec River Basin, Missouri*, House Doc. 525, 89th Congress, 2d Session, Oct. 17, 1966.
53. Litigation Report, *Sierra Club, et. al. v. Robert Froehlke, et. al.*, Dec. 26, 1973, U.S. District Court, Eastern District of Missouri, District Historical Files.
54. *Meramec Chronology*, p. 38.
55. "Meramec Park Lake Chronology of Events Leading to Present Status," Nov. 2, 1973, District Historical Files.

3

Chapter 3 The Controversy

The evolution of the Meramec Basin plan through the 1960's provided little indication of what was to come. Opposition had surfaced, but that was inevitable for any project of this magnitude. Besides, much of this opposition seemed a relatively uninspired throwback to that of the 1940's. The situation in the 1960's, however, was clearly different. In economic terms there was a pretty strong argument in support of the reservoir plan, which would not only potentially benefit rural areas, but would be a definite advantage for the expanding St. Louis community. Furthermore, political support for a reservoir was in place. Past critics, such as Monsignor Hildner, had spoken in support of this new endeavor. The Missouri congressional delegation was strongly behind it. Early appropriations for the Meramec Park Lake, the first reservoir designated for construction, moved steadily, if rather slowly, through Congress; and land acquisition proceeded apace. The major public concern in the late 1960's involved charges that land speculators were taking advantage of the situation, charges that never gained significant momentum.¹

Nevertheless, within a few years the situation changed drastically. The highly touted Meramec Park Lake went from a project initially estimated to cost \$86 million to an estimated cost of \$167 million by 1978.² Along with the escalating cost came escalating controversy, touching the local, state, and, ultimately, national scene.

A part of the Meramec dilemma could be linked to turmoil beyond the basin. The nation as a whole teemed with change and controversy. The Nixon administration was discredited by Watergate. The Vietnam War sapped the country's spirit as it exhausted the economy and threatened domestic spending programs. Inflation and recession went hand in hand with an oil and energy shortage, in some circles reinforcing the demand for a project like the Meramec to ease the region's economic plight, in other circles fueling charges of "pork barrel" programs that bloated the federal budget. In the critical year, 1976, political support for the project shifted decisively. Jimmy Carter captured the presidency, stumping against the Washington establishment and government spending. Missouri's congressional delegation also changed in 1976, most conspicuously with the senatorial victory of John Danforth, an outspoken opponent of the Meramec project.

One other legacy of the 1960's haunted the Federal government, as well as the regional response to the dam. Nineteen-sixties activism changed some of the rules of Government planning. The National Environmental Policy Act (NEPA) of 1969 established the requirement



Meramec Reservoir's Visitor's Center

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that the environmental impact of any new project be addressed. The Endangered Species Act of 1973 aimed to protect species of wildlife threatened with extinction. Often, the greatest threat to this wildlife was the encroachment of man. Since World War II, the Federal government had expanded the scope of its water resource planning from navigation, flood control, and irrigation to include water supply, recreation, and other factors. Now these responsibilities had to be measured against their environmental consequences, a complexity early dam-planners did not foresee.

Environmental issues
polarize public opinion

Environmental and economic considerations combined to complicate the Meramec situation. They polarized the proponents and opponents at the regional level. To this point, the economic considerations, both for the rural areas and for the St. Louis region, had been uppermost. Although environmentalists had been active, they inspired little public enthusiasm. Economic factors had predominated in the planning evaluations of the Corps and other interested groups. But the newly aroused environmentalists saw the benefit-cost rationale as "mere humbug."³ Opposition grew, and supporters braced themselves to defend the project that they had nurtured for so long.

Environmental Impact
Statement challenged

NEPA furnished the starting point for opposition. Signed into law on January 1, 1970, the Act required that Environmental Impact Statements be submitted for Federal projects that could substantially modify the environment. Reviewed by the Council on Environmental Quality and other appropriate Federal agencies, the statement became an integral part of the pre-authorization process for all projects. NEPA specified that the statement examine five points: the environmental impact of the proposed action; any adverse environmental impact that could not be avoided; alternative actions; the relationship between local short-term uses of the environment and the maintenance and enhancement of long-term productivity; and any irreversible or irretrievable commitments of resources which would be involved. The views of state and local officials, as well as of private interests, had to be

considered.⁴ Since this new awareness of the environment was mandated by law, and since a specific procedure was established for evaluating the impact of any project beyond the benefit-cost criteria, NEPA provided a new vehicle for environmental groups to challenge Corps projects in the courts.

NEPA applied not only to projects seeking authorization, but all ongoing projects had to be subjected to an environmental impact study. Therefore, although the Meramec project's authorization predated this legislation, the St. Louis District had to prepare a statement. It was submitted to the Council on Environmental Quality in November of 1970.

Having little precedent to follow, and given the St. Louis District's interest in moving forward expeditiously, the initial Environmental Impact Statement left itself open to the criticism of being a brief, incomplete assessment of the project. Submitted in November and released in late December, it contained eight pages of analysis that essentially restated many of the contentions presented in the initial project study. It conceded that some irreversible environmental changes would result from reservoir construction, such as the inundation of 12,600 acres of land and the elimination of 52 miles of free-flowing river; but these adverse effects, the document maintained, would be outweighed by the positive results of satisfying recreational needs and enhancing agricultural productivity below the dam since floods would be less severe. If the state properly controlled the land adjacent to the project, fish and wildlife would also be enhanced. The report noted that alternatives had been considered, including smaller single-purpose reservoirs (just for flood control or just for recreation) and no development at all. But the benefit-cost assessment of single-purpose developments could not justify the expenditure. No development, it admitted, might be the most desirable from a strictly environmental viewpoint, but that would preclude any of the benefits mentioned. This report was accompanied by three appendices documenting consultation with various state and Federal agencies.⁵

The immediate reaction of many reservoir supervisors can be summarized by the remark of a U.S. Forest Service representative who saw the Environmental Impact Statement as proof that "the magnitude of these effects are not great enough to create a serious environmental imbalance."⁶ But his outlook was not shared by all. Two organizations now stepped forward to carry the banner of the environmental cause.

The Missouri Coalition for the Environment was the first to respond. Founded in 1969, it was a broadly based alliance of individuals and groups concerned with ensuring environmental quality. James Gamble had been on the organizing board of directors of this group, and the Meramec Basin Association had been one of the charter members. However, Gamble took the Meramec Basin Association out of the Coalition in 1971 when it decided to oppose the Meramec project.⁷

The second group, which eventually supplanted the Coalition as the leading opposition, was the Ozark Chapter of the Sierra Club. First organized in the late 1960's by a "hard core group of 25," by the early 1970's it had a dues-paying membership of more than 1,800. This group's

espoused goal was to restore the natural environment, preserve the wilderness, and increase public awareness and understanding of environmental issues. In 1970, Jerry Sugerman, a research technician at the Monsanto corporation, joined the organization. He was destined to become the most visible spokesman of the Sierra Club cause.⁸

After studying the Corps' statement, Mark W. Paddock, the chairman of the Open Space and Land Use Committee of the Coalition for the Environment, declared that it contained undocumented assertions, conflicting statements, and significant omissions.⁹ Paddock sent a formal letter to Colonel Carroll N. LeTellier, the District Engineer, who then forwarded Paddock's comments and the Corps' response to be filed with the Environmental Impact Statement. Paddock acknowledged that the Corps was working at something of a disadvantage because the law was only a few months old; nevertheless, he asserted that

this did not "relieve the Corps of responsibility for preparing an Environmental Impact Statement which meets all the requirements of the National Environmental Policy Act." He delineated the Coalition's concerns into 13 different categories. But he did not provide any answers; he only raised questions. The letter pointed out that disorganized development without proper planning and zoning could have an adverse effect on the region. A reservoir, without proper planning, would make the situation worse rather than better. The Coalition also wanted the Corps to make its statement more specific and provide accurate figures; for example, figures on the number of acres that would be lost to agriculture versus the acres that would be protected, a detailed assessment of how much of the natural scenic riverway would be altered, an analysis of the tradeoff in recreation between post-reservoir use and recreational uses already in existence; the precise figures on water quality (the Coalition noted Corps predictions of increased recreational use of the river and surmised that this could not help but degrade



**Jerry Sugerman (left)
Opposition Leader**

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Mercantile Library Association)

water quality). The letter from Paddock also asked the Corps to examine more rigorously the alternatives to reservoirs, such as flood insurance and the purchase of land susceptible to flooding. It requested an independent examination of the ecosystem, including an inventory of plants and wildlife, that could be published so that experts could examine the possible losses to the ecosystem. Finally, it asked for a public hearing focused on the environmental impact, since the last public hearing had been held in 1963. Paddock ended by cautioning that the "short term economic benefits for recreation must be carefully weighed against future, long range deleterious effects upon the environment."¹⁰

The District's eight page reply was more detailed than its initial Environmental Impact Statement. Unaccustomed to environmental attacks, the St. Louis District found itself on the defensive, seeking to prove that its conclusions were justified. On most of the Coalition's points, its response correctly argued that these had been considered in detail by the Washington University study, which had been appended to the 1964 Comprehensive Basin Study, as well as in the Basin Study itself. Citing briefly from each of these, as well as from other investigations that were done in conjunction with them, District planners tried to present their side, quoting estimates of benefits and costs. On the question of proper planning for and development of lands affected by the project, the Corps admitted that the Coalition had a point. The Corps itself was concerned, but maintained that it was something state and local authorities had to resolve: the Corps had no statutory authority to manage or enforce zoning or land-use plans. On the call for a public meeting, the District conceded that the last public meeting per se had been held in 1963, but contended that the plan had the broad support and cooperation of elected officials in Missouri and that on numerous occasions members of the St. Louis District had met informally with groups to explain the plan. Thus, a public meeting was not really necessary.¹¹

The Corps asserted that the Environmental Impact Statement they submitted should have been considered in conjunction with the other studies conducted over the years. These had addressed many of the very questions raised by the Coalition for the Environment. However, the real conflict arose because the Corps and the Coalition were evaluating the situation from two different perspectives. The Corps focused on the economics of a multipurpose project, whereas the Coalition looked primarily at environmental effect. The fact remained that the initial Environmental Impact Statement itself was too sketchy, and the comprehensive study upon which most of the statement's data was based was already nearly 8 years old. Thus, the coalition was quickly joined by the Ozark Chapter of the Sierra Club and other groups.

To assuage the mounting opposition, the new District Engineer, Colonel Guy E. Jester, invited officials of the Coalition, the Sierra Club, and the Meramec Basin Association to the District office on December 9, 1971, to discuss basin development and to encourage their input regarding a supplement to the Environmental Impact Statement. Subsequent to that meeting, Jester asked the three groups to appoint two representatives each to serve on an advisory committee to evaluate the environmental components of the comprehensive study and to determine if a supplement to the



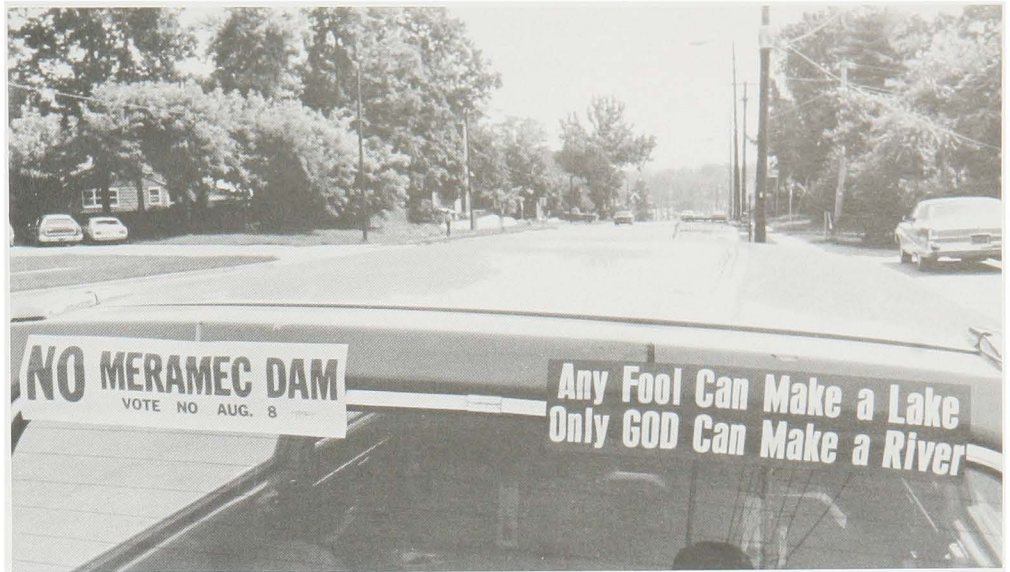
Lester Dill, Onondaga Cave Owner

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Environmental Impact Statement, which had already been approved by the Council on Environmental Quality, needed to be submitted. The Coalition and the Meramec Basin Association accepted the invitation. The Sierra Club refused, deciding to preserve its independence and its right of critical review. Ultimately, in order to silence this growing criticism, the St. Louis District decided to undertake an indepth environmental review and inventory of the Meramec Basin, with particular emphasis on the Meramec State Park Reservoir. A contract was extended to Ryckman, Edgerly, Tomlinson, and Associates, a prominent environmental engineering consulting firm. The anticipated date for completion of this study was October of 1972.¹²

These initiatives failed to stem the growing tide of opposition. Even as the new Environmental Impact Statement was being prepared, the project faced increasingly formidable obstacles. For one, the cost of the Vietnam conflict constricted Federal funding in other areas. The Meramec Basin Association, which had lobbied hard to move dam construction along, was disheartened by the fact that in 1971 the Nixon administration appropriated nothing for construction and only \$1.5 million for land acquisition, a figure that only increased from eight to fifteen percent the amount of land necessary to acquire. Such delays pushed the scheduled start of construction back from June of 1973 to mid-1974.¹³

Furthermore, in the spring of 1971, responding to growing environmental concerns, the Citizen's Committee to Save the Meramec was formed as a counter to the Meramec Basin Association. Headed by Emmett Schlueter, a Crawford County farmer and businessman, this organization included urban canoeing enthusiasts and rural landowners who feared the loss of their property. Its avowed purpose was to preserve the scenic, historic, scientific, and cultural value of the Meramec region, and its specific target was dam construction. To accomplish these ends, it insisted that there were better means for flood control and recreation.¹⁴



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Sierra Club goes to court

The Sierra Club then inflicted a telling blow in the form of a lawsuit to block the project. In that suit, filed on September 25, 1972, the Club contended that the Corps had not complied with the Flood Control Acts of 1936, 1938, and 1966; that it had violated the Wildlife Coordination Act of 1958; and that it had not fully satisfied the requirements of the National Environmental Policy Act of 1969. In all, the suit made 29 allegations based on Corps activities and sought an injunction stopping the project until all of these matters had been resolved.

On November 29, the Government responded to these charges, essentially declaring that it had complied with all legal requirements and that its plan had been considered by all appropriate state and Federal agencies. The Corps admitted that questions might remain about the Environmental Impact Statement, but that the Statement had been submitted and accepted by appropriate authorities. It had to be judged, the Corps argued, not in isolation, but in the context of available material. Nevertheless, in order to respond more adequately to the opposition's charges, a more detailed study was in process and was scheduled for



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completion in the fall.¹⁵ Project supporters, such as the Meramec Basin Association, lent the Corps much moral support, but in justifying its position in this and the other court suits, the Corps—represented by the Department of Justice—had to make its own case.¹⁶

On July 11, 1973, Judge H. Kenneth Wangelin, U.S. District Court, Eastern District of Missouri, denied the plaintiff's petition without prejudice in light of the fact that the preliminary Environmental Impact Statement had been filed. But the judge was willing to permit the Sierra Club to refile its suit if the revised Environmental Impact Statement was not filed with the Council on Environmental Quality by October 1, 1973. Wangelin considered the suit itself premature since construction was not scheduled to begin for another year.¹⁷

The St. Louis District complied with the court's stipulations and on September 27, 1973, filed a revised Environmental Impact Statement. This new document contained extensive data on the environmental factors that might be affected by the Meramec Park Reservoir. On balance, it reinforced the conclusions expressed in the initial statement. As the District Engineer, Colonel Thorwald R. Peterson, declared in the "Statement of Findings" at the beginning of the report, "the significant economic cost benefits of the Meramec Park lake project clearly outweigh, in my opinion, the recognized adverse environmental impacts attendant to the Project" (an opinion shared by most who had planned the project). Basing his judgment principally on these economic assessments, he went on to conclude:

Therefore, being fully appraised of the environmental, social, and economic losses and gains which will accrue from the project, and having considered all practicable alternatives in the light of the economic and environmental factors, social well-being, and engineering feasibility, I



**Don and Pat Rimbach, Opponents of the Dam
at a Victory Celebration**

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have concluded that, on balance, the net effects of the Meramec Park Lake are beneficial, and that it is in the best public interest to complete the project.¹⁸

The Sierra Club, however, was not satisfied with the report's findings and exercised its option to refile an amended suit on December 26, 1973, restating its initial objections and adding new ones. The new suit asked the court to issue a permanent injunction prohibiting acquisition of land, construction, and any related activities on the Meramec and other dams. It now contended that the new Environmental Impact Statement was flawed since it examined only the Meramec Park Lake when it should have investigated the whole basin plan. It challenged claims that the lake would improve water quality since the dam was not necessary to conform to water quality standards established by the Environmental Protection Agency. The Sierra Club also asserted that, since the cost of the project had been understated by the Corps, the benefit-cost figures used to justify it were flawed. Of particular note was the Club's argument that purchasing land in the flood plain was cheaper than building a dam. A nonstructural solution to the flooding problem at least needed to be considered. Finally, it maintained that the project would obliterate the Meramec Basin as it then existed, forcing the rural culture to yield to urban pressures generated by the presence of a reservoir.¹⁹

In the 10 months between the filing of the revised lawsuit by the Sierra Club and the actual trial in November 1974, events developed rapidly. There was some encouragement for dam advocates when Governor Christopher Bond of Missouri reaffirmed his support. He asked Congress for Federal funds to continue with the Meramec Park Reservoir and to institute studies for the Union and Pine Ford Reservoirs.²⁰ In July, a contract had been awarded for initial construction of the Meramec project, which included an access road and a visitor's center.²¹

Despite these developments, more spectacular news-catching obstacles hindered the project. Numerous natural caves dotted the Meramec Basin. Donald Rimbach, a resident of St. Louis, had studied these caves and questioned the safety of a dam constructed on them. From his studies, he surmised there were many more caves as yet undiscovered. Safety aside, Rimbach warned that many of these would be flooded by the dam, including the Onondaga Cave, which was owned privately and opened for tourists. This, to him, constituted inexcusable destruction of a valuable natural resource. Rimbach spoke frequently at public forums on this topic. As District representatives responded, their technical engineering assessments proved less convincing to the public than Rimbach's dramatic contentions. St. Louis District personnel were cautious at public gatherings. Rimbach, in contrast, displayed little compulsion to temper his contentions.²²

Rimbach had entered the controversy at the request of Lester Dill, an early supporter of the Meramec Basin Corporation and owner of Onondaga Cave. Dill had been negotiating with the Corps of Engineers to sell his cave, but when his efforts were not progressing, he seized upon Rimbach's findings to institute a lawsuit of his own. His suit, filed June 21, 1974, questioned the project's cost and charged that it would displace a large

number of families. The heart of his case was that the Corps had not adequately studied the caves in the area, creating a potential safety hazard. Despite assertions by the Corps that all data showed the dam to be safe, the issue of the caves would haunt the project from this time forward.²³

Additionally, in a clever legal machination, Dill contended that the Corps had no legal right to dam the Meramec since to do so would violate the Act admitting Missouri to the Union. This legislation had provided that all navigable rivers and water leading to the Mississippi River would be "common highways and forever free." In Dill's interpretation, damming the Meramec would close these waterways to navigation. The Corps studied the question of navigability, examining past court rulings and use of the Meramec as an avenue of commerce. The District concluded that the Meramec was a navigable waterway from its mouth upstream to Meramec Springs. Beyond that point, it was no longer truly navigable. Therefore, the proposed dam site did not obstruct navigation. Further, the Corps argued that "common highway" and forever free" referred only to assuring equal access without taxation. Such a phrase aimed only to prevent "monopolies or private preferences for the use of navigable waters." Finally, under the Commerce Clause of the United States Constitution, the Federal government held the right to construct such reservoirs.²⁴

Caves and the Indiana bat

Still another problem involving the caves added to the Corps' problems. In the weeks prior to the Sierra Club trial, scientists discovered a large colony of Indiana Bats (*Myotis Sodalis*) in a cave near the site of the Meramec reservoir. The lake would not have flooded that particular cave, but it would have inundated the bats' hibernating grounds. In addition, construction activity, which included blasting, could possibly disturb these creatures. Ultimately, evidence of bats was found in other caves. Not only Indiana bats, but also grey bats (*Myotis Grisescens*), another endangered species, were identified. These creatures became a cause celebre because they were protected by the 1973 Endangered Species Act, which provided that no Federal agency could take any action that would imperil a listed species or destroy any habitat crucial to its survival. The Interior Department also suspected that rare species of mussels and other river life might be threatened, so it asked for a construction halt until adequate studies could be conducted. As for the Sierra Club, it asked the court for a delay in presenting its case so that these new revelations could be fully investigated. On September 20, 1974, the Club amended its amended suit to include alleged violation of the Endangered Species Act of 1973. The St. Louis District was dismayed by this new approach, suspecting that it was one more issue the Sierra Club was grasping at to derail the project.²⁵

Reservoir plan wins in court

The bat controversy injected a new dimension into the trial, but in the 3 days of testimony in November of 1974, the Sierra Club failed to convince the court. The three major issues raised during testimony were challenges to the Corps' cost-benefit figures, its alleged failure to seriously consider alternatives to the dams, and the status of the Indiana bat. Judge Wangelin, in handing down his decision on March 19, concluded that the Corps acted in good faith and in a reasonable and responsible manner. He pointed out that it was Congress which had authorized the project and that Congress

had accepted the cost-effectiveness of the reservoir. The Corps was carrying out its duties. On questions involving nonstructural means of flood control, such as the purchase of land in the flood plain, the judge accepted the District's judgment that the cost of purchasing this property was prohibitive. He found the Sierra Club's assertions "simply not credible" and "inadequately prepared and calculated." He dismissed the argument about the Indiana bats, noting that the question had been added to the suit only days before the trial and that expert witnesses admitted that the bats would most likely be extinct within 15 to 20 years even without the dam.²⁶ Judge Wangelin saw the bats' controversy as one more effort to hinder construction and implicitly questioned the appropriateness of delaying the project to save an endangered species when expert witnesses doubted that the species could be saved at any rate.

The Sierra Club, unwilling to concede defeat, appealed and in September 1975, submitted the legal documentation to the U.S. Appellate Court for the Eighth District. First, it argued that the National Environmental Protection Act had been violated because the Corps had not adequately considered alternatives to the dam and because the Environmental Impact Statement had considered only the Meramec Park Lake project rather than the whole Meramec Basin plan, even though the Meramec Lake was only one component of that larger plan. Second, it referred to the Endangered Species Act of 1973, noting the existence of the Indiana bat, which it felt had not been adequately discussed in the Environmental Impact Statement. The construction of the dam as well as the resulting reservoir itself, posed a possible threat to the existence of this endangered species.²⁷

The Appellate Court gave the Corps 10 days to report on the dam work and its effect on the Indiana bat. Anticipating continued controversy over the fate of the bats, the Corps had joined with the U.S. Fish and Wildlife Service and the Missouri Department of Conservation in sponsoring an 18-month study of the status and ecology of all the bats of the genus *Myotis* in the Meramec Park Lake area. That study began in July of 1975 and was scheduled for completion at the end of 1976.²⁸ The Corps denied that work on the project would endanger the bats and predicted that if construction were delayed for 2 years until studies on the bats were completed, it would add an additional \$10 million to the project's cost.²⁹

As this case was being appealed, the other lawsuit brought by Lester Dill came to trial on November 4 and 5, 1975. In two days of testimony, Dill's lawyers tried to prove their accusations. They also stressed the impact the reservoir would have on Onondaga Cave. Several of its caverns, they speculated, would probably be flooded. They further emphasized the safety risk posed by the existence of subterranean caves in the reservoir area.³⁰ If the Federal appeals court handed down a favorable ruling in the Sierra Club case, this would undoubtedly boost the prospects of Dill's case.

Surrounded by increasing public notoriety, the courts took both of these cases under advisement, holding the fate of the Meramec Dam in their hands. Finally on April 23, 1976, the Circuit Court of Appeals responded to the Sierra Club's appeal. In a narrowly construed decision

focusing on the technical issue of Corps compliance with Federal law, the judges upheld Wangelin's verdict. The three-judge panel concluded that the Environmental Impact Statement had met the requirements of the law. The Corps had balanced the benefits derived against the environmental costs. While they admitted that not everyone would have reached the same conclusions as the Corps, given the data, "these were the agency's decisions to make, not ours."³¹ In the aftermath of this legal victory, the other suit was also settled. Lester Dill, involved in negotiations with the Corps for purchase of the Onondaga Cave, conceded that his case would probably meet the same fate and dropped his suit in May.³²

Despite the obstacles arising from the court challenges, construction on the project had been plodding along. Contracts had been signed for the construction of an access road and visitor's center in 1974. Land had been cleared, and grouting began. In December 1975, President Gerald Ford signed a bill appropriating \$6.8 million for Meramec Dam construction, plus \$1.68 million for preparatory planning on the Union and Pine Ford Reservoirs. In January 1976, his preliminary budget proposed \$4.5 million for the Meramec Reservoir and \$1.2 million for Union and Pine Ford.³³

Nevertheless, even these court victories and Federal appropriations did not smooth the way for the Meramec Dam. Nineteen seventy-six became a pivotal year as opposition magnified. The U.S. Department of the Interior was notable in its increasing criticism of the reservoir plan. Some dam supporters suspected that the Department of Interior and the Sierra Club were working together. However, none of these allegations were ever substantiated. As Robert Muffler, the St. Louis District's co-counsel in the court proceedings remarked, one could not deny that Interior Department personnel had some common interests with the Sierra Club. But that was all. Besides, he pointed out, the Interior Department studies used by the Sierra Club were all part of the public record.³⁴

One early instance of the Interior Department's involvement came in 1973 when a representative of the Department's regional office in Denver contended that, according to his calculations, purchasing the flood plain would be a cheaper and less destructive means of preventing flood damage than the construction of a dam. Later, during the Sierra Club lawsuit, the Department, in accordance with the Endangered Species Act, advocated suspending work on the dam until the fate of the Indiana bat could be adequately resolved.³⁵

In a similar vein, at the end of 1975 the Assistant Secretary of the Interior, Nathaniel P. Reed, addressed a letter to the Secretary of the Army arguing that the reservoir was not needed and calling for a moratorium on financing and work on the project. He based his request on a state of Missouri study, which he claimed showed that there was already abundant flatwater recreation in the St. Louis area. State Natural Resource Director, James L. Wilson, publicly disputed this, noting that the data on flatwater recreation Reed was referring to had been based on an early draft of a study that was still in process. Wilson explained that the reference to flatwater in that study included everything from reservoirs to farm ponds.

Many of these so-called flatwater bodies were not conducive to the same recreational opportunities as a reservoir.³⁶ Nevertheless, the Interior's questioning fed doubts among a skeptical public.

The Sierra Club also took the offensive more aggressively, pursuing the charges voiced during the court hearing and pressing for renewed studies of alternatives to dams and reservoirs. The Club was intrigued by this latter possibility to the point of developing options that it considered viable counter proposals. One such counter proposal had been outlined in broad form in a 1974 publication, and by mid-1976, had been developed and published in greater detail. The proposal was dubbed the "Meramec Heritage Riverway." Its advocates pursued its implementation even after the 1978 defeat of the Meramec project. Jerry Sugerman, the regional director of the Sierra Club and one of the plaintiffs in the Club's unsuccessful litigation, was a principal proponent of this alternative. Sugerman increasingly turned to politics to press his case now that the courts had ruled against the environmentalists. For a time, he even served on Senator John Danforth's staff, an indication both of the reputation he had garnered in this controversy and of the importance Danforth placed on the Meramec issue. The plan he promoted addressed the dual purposes of recreation and flood control while costing considerably less than constructing a reservoir--approximately \$69 million as opposed to \$115 million according to his estimates. As outlined in the "Heritage Riverway" plan, St. Louis's recreational needs would be satisfied by using lands already acquired for the reservoir as sites for camping, hiking, horse trails, and other outdoor activities. The rivers and streams would remain free-flowing, with access points for canoes constructed at several locations. The remainder of the land would be devoted to farming, emphasizing particularly land uses conducive to wildlife propagation and the reduction of rainwater runoff. Flood damage would be further alleviated by a Federal program to relocate families already living in the flood plain.³⁷



Senator John Danforth

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The St. Louis District responded skeptically to this alternative plan. The Sierra Club had made the same proposals during its court case, and the District's response in court best summarized the Corps' position. The District pointed out that in its Environmental Impact Statement, it had considered alternatives to recreational and flood control needs, as had been mandated by law; the Corps also challenged what it considered erroneous cost figures in the Sierra Club's plan. As testimony in the trial established, it would cost nearly \$140 million to acquire the flood plain. Land prices had rapidly escalated in recent years, rendering this course of

action not "a reasonable and viable alternative to the presently planned project." Furthermore, this cost was aside from the expenses of recreational improvements and family relocation.³⁸

This Sierra Club proposal encompassed a diversity of motives. On the one hand, some sincerely believed that its recommendations were feasible and that it adequately addressed basin problems. On the other hand, alternatives such as this were exploited by some of the more militant environmentalists as a means of obstructing construction, regardless of their viability. Any information to challenge the Corps' plan, question the motives of those who supported it, and generate public opposition was eagerly utilized. Scathing diatribes against the Corps of Engineers and its supporters circulated among Sierra Club members and other opposition groups. The gist of much of this material was as much how to obstruct as how to logically challenge the project. Such tactics widened the rift between the opponents and District personnel who were convinced of the need for this project.³⁹

Events far removed from the Meramec Basin exacerbated public doubts about the wisdom of a reservoir. On June 5, 1976, Idaho's Teton Dam collapsed, causing destruction through the Upper Snake River Valley, sending shock waves across the country, and raising questions nationally about the safety of other Federally constructed dams. A spokesman for the Environmental Policy Center in Washington announced that the proposed Meramec Dam was one of two projects soon to be voted on by Congress with worse foundation problems than the Teton Dam. He cited as proof the testimony of a former Government geologist that the Teton Dam had been built in porous limestone country. He compared this to the porous land in the vicinity of the Meramec Dam. The Corps responded by noting that the Teton Dam was a Bureau of Land Reclamation project, not a Corps project; that the Meramec Dam had undergone extensive testing; and that the dam was to be made of rockfill with a central clay core. The whole structure was going to be placed on bedrock, making it considerably more secure than the dam on the Teton River.⁴⁰

This revelation, however, combined with the testimony in the Dill Case alleging the prevalence of caves in the region around the Meramec reservoir, aroused increased local concern. The Corps of Engineers had to allay these fears if the project was to continue.

Election year politics,
doubts about reservoirs

All of this took on added meaning in 1976, an election year with important national and state offices at stake. Candidates from the presidential race down to state legislative posts voiced conflicting opinions on the wisdom of the Meramec project. Jimmy Carter, the Democratic presidential candidate and eventual winner, set the tone for the political opposition. Carter, a former Georgia governor, ran a campaign in which he portrayed himself as a Washington outsider and stressed his dislike for "pork barrel" projects which unnecessarily inflated the Federal budget. As he noted in his memoirs, during his campaign he had "repeatedly emphasized the need to eliminate waste and pork-barrel projects in the federal government." From his gubernatorial experience, he knew that the worst examples of this were "unnecessary dams and water projects that would cost billions of dollars and often do more harm than good."⁴¹

This crusade became an important part of Carter's platform. In March 1976, during a visit to St. Louis, reporters questioned him about the Meramec project. He affirmed his opposition, likening the Meramec Reservoir to the proposed Spewrell Bluff Dam on the Flint River in Georgia, which he had vetoed while governor because he had wanted to protect "the last free-flowing stream in Georgia." He was "absolutely against" the Meramec Park Project because the Corps had "once again overestimated the advantages and underestimated the cost." He swore that if elected he would for all practical purposes get the Corps of Engineers out of the dam-building business.⁴²

The issue also figured prominently in the Missouri congressional races. Representatives Richard Ichord and William Burlison, incumbents who had publicly supported the dam, faced little significant opposition in their reelection bids. Likewise, St. Louis Democrat Robert Young, running for the first time, was a proponent with only weak opposition. Ichord, in particular, whose Eighth District encompassed much of the reservoir area, actively promoted the project and throughout the controversy continued to fight for funding. All three, however, felt the tide of public opinion turning and hesitated at the time to support the other proposed dams in the Meramec plan. In the city of St. Louis itself, in contrast, Alderman Richard Gephardt, who was seeking a congressional seat, was leaning toward opposition, although it was not a key issue in his campaign.⁴³

In the contest for governor, the leading candidates held clearly contrasting positions. Governor Christopher Bond, running for reelection, had been a consistent supporter, although at the end of 1975 he hedged his position when he declared that he was going to reevaluate the situation and look at alternatives to the other four dams in the overall plan. His Democratic opponent, Joseph Teasdale, openly criticized the project. The *St. Louis Post-Dispatch* thus portrayed the gubernatorial contest as a referendum on the dam itself.⁴⁴

The most crucial race involved the U.S. Senate seat from Missouri. Republican candidate John Danforth was unequivocally opposed to the dam. As Attorney General of Missouri, he had opposed it, and as a senatorial candidate, he reaffirmed his stance. He argued that the \$115 million price tag was not worth the environmental damage it would inflict. With the Federal budget projected to exceed \$400 billion, he believed that it was necessary to curb Government's urge to spend tax money on nonessentials. Somewhat in step with the Sierra Club, he ventured that the land already acquired might be used as a major recreation area for the St. Louis region that had no lake. He vigorously pushed his case throughout the campaign.⁴⁵

During the primary campaign, notable Democrats vying for the chance to oppose Danforth included Warren Hearnes, former governor of Missouri, who supported the dam but withheld any endorsement for the rest of the plan. Jerry Litton, a strong and popular contender, described the dam as "non-essential" and "ill-justified." Still another candidate, James Symington, a member of the House of Representatives, declared that, although he had supported the project in the past, he would change his

stand if a statewide referendum "or other conclusive indication of public opinion" showed that Missourians opposed the project.⁴⁶ His was the first important declaration by a public figure that a referendum might decide the project's fate. Litton won the primary election, but was killed in a tragic airplane accident. His place on the ballot was taken by Hearnese. The race for the Senate thus presented voters with an option, the pro-dam Hearnese versus the anti-dam Danforth.

The Meramec was clearly a critical issue. Danforth was the most adamant and consistent critic of the dam. Ichord, Bond, and Hearnese, among others, supported the Meramec project while reserving the right to reevaluate the overall plan. Teasdale had no firm commitment on what to do about the dam. Most of the candidates were posturing themselves to bend with the political winds as public opinion shifted on the advisability of such an undertaking. One indication of this shift appeared in a 1976 Missouri Auto Club poll on the Meramec Dam, which claimed 1,500 responses. Of those responding, 87 percent wanted to leave the river in its natural state and only 13 percent supported the dam's construction.⁴⁷

As the campaign highlighted the Meramec issue, the project received increasing editorial attention. Rural newspapers in the areas where the project offered so much potential benefit largely endorsed the project. But it was in metropolitan St. Louis where the fate of the project would ultimately be determined. Here, the two major newspapers not only made their readers more aware of the arguments pro and con, but they presented opposing editorial opinions. The *St. Louis Globe-Democrat* was an avid proponent. In contrast, the *St. Louis Post-Dispatch*, which in the early 1960's had touted the benefits that would accrue from the project, by the 1970's had become an outspoken foe.⁴⁸ Since these two newspapers had opposing editorial positions, the role of the St. Louis press seemed more one of keeping the issue in the public eye than actually swaying the viewpoint of the people.

The outcome of the fall elections had a pivotal effect on the Meramec Dam. Ichord and Burlison, as expected, won handily. However, Bond lost the governorship to Teasdale, and Danforth was victorious in the Senate race. Significantly, Carter, the water project critic, defeated his Republican opponent, President Gerald Ford. The Meramec Dam was not the determining factor in the outcome of any of these contests, but it is safe to conclude that it was important, especially in the contests for the House and Senate seats. The debate, furthermore, had important repercussions for the project's future. With Danforth's victory and the strong anti-dam sentiment the campaign had engendered, Missouri's other Senator, Thomas Eagleton, underwent a metamorphosis. He switched from a Meramec Dam supporter to an advocate of a referendum on the dam's future.

Jimmy Carter's "Hit List"
of Federal Projects

All of this meshed with a changed perspective in Washington. In one of his first moves after taking the oath of office in 1977, President Carter presented Congress with his "hit list": eighteen water projects that he wanted dropped from President Ford's preliminary 1978 budget. The Meramec was one of these. President Carter was wresting the initiative for water resource project control from Congress, where it had historically resided. This move was followed by some jolting testimony before a

Congressional Committee by Major General Frank P. Koisch, Lower Mississippi Valley Division Engineer. In February 1977 Koisch recommended that spending on the Meramec project be halted unless or until there was a clear decision to proceed. As he declared, "let's face it, there's no sense in spending money on a project that is about to be shut down."⁴⁹

Responding to Carter's "hit list," congressmen and senators throughout the nation jockeyed to preserve the water projects that affected their districts. In Missouri, Ichord and Burlison scrambled to save appropriations for the Meramec.⁵⁰ Senator Eagleton, who was now noncommittal, offered to support certain appropriations to keep the project alive in return for guarantees of a referendum to determine its final fate.⁵¹

Meanwhile, in conjunction with his "hit list," Carter ordered a full review of the 18 threatened water projects. He wanted them evaluated in light of economic, safety, and environmental considerations. In February 1977, Carter informed Congress that he had instructed the Secretaries of the Army and Interior to join with the Office of Management and Budget and the Council of Environmental Quality to conduct a comprehensive study and report to him by April 15, 1977. As part of this review process, the St. Louis District evaluated the Meramec project, taking into consideration the opposition's concerns. To gather this information, Colonel Leon McKinney, District Engineer, announced a public meeting in Sullivan, Missouri, for March 26, 1977.⁵²

"The Meramec Shoot-out"

The Sullivan gathering was intended to address the review criteria to be applied to the Meramec project, but the discussion ranged far afield. It came to be known as "the Meramec shoot-out."⁵³ Only about 900 citizens formally registered at the meeting, but the actual crowd was estimated at 2,000. Boos and hisses echoed through the city hall as proponents and opponents spoke. Representatives from the rural areas, as well as the urban centers of St. Louis city and county, packed the hall. Only about 15 percent of those who spoke actually addressed the review criteria. Rather, spokespersons raised a range of issues, including economic considerations, safety (from a geological standpoint), flood control and the importance of preserving a free-flowing stream versus having a lake. The whole proceeding proved inconclusive, but it did underline deeply felt passionate positions.

After all the information had been collected and evaluated, the review produced some interesting results. On the question of dam safety, the Office of the Chief of Engineers concluded that there was "no condition that would preclude design and construction of a safe project."⁵⁴ On another question, economic feasibility, the White House was informed that rising interest rates had indeed eroded the benefit-cost ratio. Now the ratio of benefits to costs was 1.5:1 where previous estimates had placed it at 1.9:1. The project, however, was still economically justifiable.⁵⁵

Economic feasibility and safety factors, viewed objectively, could not be effectively used to argue for the termination of the project. The final determinant for Carter's decision lay elsewhere, in his own criteria for determining the project's merits. For one thing, the President had serious environmental concerns. As he had said in his campaign, he had opposed

a similar project in Georgia partly because it was going to destroy a free-flowing stream (one of the often-repeated arguments pressed by environmentalists). Also, the future of endangered species such as the Indiana bat was a consideration. One of the dam's supporters at the Sullivan hearings had argued that concerns for people should take precedence over endangered species.⁵⁶ But Carter, like others, did not see it in such simple terms. Another factor affecting his stand was his disdain for the "pork barrel" politics prevalent in the nation's capital. He was not looking at this one individual project, but at all Government actions that together had contributed to the bloated Federal budget. The Meramec project was caught in this squeeze. One final point that certainly confirmed his decision was the lack of popular support emanating from Missouri, as evidenced most forcefully by the actions of the two Missouri senators. Therefore, after examining the findings of the review, Carter in April 1977 decided to delete funding for the Meramec project from the 1978 fiscal budget. He set as his ultimate goal its de-authorization.⁵⁷

Pressure by the Carter administration to terminate the project had always gone through channels, from the Office of the Chief of Engineers to the Lower Mississippi Valley Division to the St. Louis District. But many in the Corps had invested great amounts of energy in this project and were convinced of its viability. They were disillusioned with and did not welcome the White House decision. As the District Engineer at the time, Colonel Leon McKinney recalled, the White House had applied pressure to compel the District to, in his words, "lie" about the actual benefits of the project. McKinney cited particularly a White House assertion that the lake would flood more land than it would protect, a contention McKinney refused to allow the District to substantiate publicly. According to McKinney, the lake would have flooded 12,600 acres and would have completely protected only 11,800 acres, but it also would have provided "substantial" protection for another 23,000 acres of land. Such figures were interpreted one way by the Carter administration and another by the District Engineer. The heart of the difference, however, lay in another of McKinney's remarks, that the project met the economic criteria. The fact is that the economic benefits, while less than when the project was originally conceived, were still substantial. Yet now environmental costs, some of which were difficult to evaluate monetarily, had intruded, creating problems for the projects.⁵⁸

Ultimately, Carter compromised with Congress, agreeing to retain 9 of the 18 water projects in the fiscal 1978 budget, but the Meramec Dam was not one of them. It would, therefore, be a year before additional funding might be available. Congress did not de-authorize the project, but only suspended funding for a year.⁵⁹ A referendum in which the people of Missouri voted in support of the project seemed the only hope dam proponents had for its salvation.

Voter referendum on
Meramec Plan

During the 1976 campaign, a referendum had been the brainchild of dam opponents who confidently read the growing public opposition. They were sustained by the belief that a referendum would vindicate their position.⁶⁰ Politicians who were reluctant to pursue a course diametrically opposed to the wishes of their constituents also embraced this solution. Senator Eagleton was one. Representative James Symington, one of the

primary candidates for the Democratic senatorial nomination, had been another. He, too, had initially supported the Meramec project, but during the campaign stated that he would change his stand if a statewide referendum "or other conclusive indication of public opinion" showed that Missourians opposed the project. Symington sought some sort of a middle position; for not only was he willing to abide by a referendum, but he also called for both sides to submit their differences to mediation to try for a solution.⁶¹ But this was a futile plea; disagreements on the project had passed the point of compromise.

With Meramec funding deleted from the fiscal 1978 budget and with the victory of prominent project opponents in the 1976 election, dam supporters began to change their stance on a referendum. They now saw it as one of the last possible avenues to keep the project alive. The immediate issue became the parameters for such a referendum. The opposition wanted a statewide, not a regional referendum, realizing that local support for a project bringing regional flood relief and economic benefits could be affected by strong opposition in urban areas. For the same reasons, proponents wanted the vote limited to locally affected areas.⁶²

The Missouri legislature was responsible for determining the parameters for the vote. State Senator Joseph H. Frappier, a Republican, and State Representative Wayne Goode, a Democrat, introduced referendum bills in their respective legislative bodies in December 1976. Their original bills proposed a regional vote encompassing St. Louis city and county, and the counties of St. Charles, Franklin, Jefferson, St. Francois, Washington, Crawford, Iron, Reynolds, Dent, Phelps, Gasconade, and Maries. Their timetable projected an election on the April 1977 ballot.⁶³

The bill failed to clear the legislature in time for the April vote. When Governor Teasdale called a special session of the legislature, an effort was mounted to get him to include the referendum issue on the agenda. But the Governor refused because he wanted the legislature to concentrate on a capital improvement bill.⁶⁴

The push for a vote, however, did not end, but gained momentum in August 1977. In what he described as a "last ditch effort" to salvage the Meramec Dam, Congressman Ichord endorsed a regional vote. He was now convinced that the Carter administration was serious about eliminating water projects, so the election was the last hope. The question of a regional versus a statewide referendum was still debated, but in early 1978 the Missouri legislature approved a bill prescribing a regional referendum on August 8. Governor Teasdale signed the bill in April.⁶⁵

Both sides geared up for what they expected to be a do-or-die situation. In Washington, Meramec funding had been revived in the preliminary budget for fiscal year 1979. Its retention in the final budget hinged upon the outcome of the vote.⁶⁶ President Carter had expressed his intention to eliminate the Meramec project. Now politics, not economics, determined the project's survival. Missouri Senators Danforth and Eagleton were pivotal figures. They would push for continued funding only if the vote indicated a groundswell of support for the Meramec program.

Most observers anticipated a close election. Several polls had been conducted, targeting different groups of people interested in the issue and producing contrasting results. On the one hand, the dam's economic potential appealed to many rural citizens living near the dam site. Their view was exemplified by a remark made by Carl Hunt, the Mayor of Cuba, Missouri, who urged the Corps to go ahead with the project. He complained that "too many people who do not live in this vicinity are having a great deal to say about trying to halt construction of Meramec Park Lake when it is really none of their business. Most of them don't know what they are talking about. They don't know what our problems are out here."⁶⁷ Many rural residents agreed with Hunt's accusations. State Representative Bill Burlison, in March 1977, released a poll he had conducted in Jefferson, Iron, and Francois counties, showing 2 to 1 support for the project—3,919 of those polled approving and 1,597 against. In April, Representative Ichord released a similar poll conducted in Washington, Franklin, and Crawford counties showing that 62.5 percent approved (13,354); 36.5 percent opposed (7,796); and 1 percent (176) were undecided.⁶⁸

Poll results were different when conducted either statewide or in St. Louis. A *St. Louis Globe-Democrat* telephone poll in the fall of 1977 found that 55 percent of the respondents opposed the dam, 19 percent favored it, and 26 percent were undecided. The *Globe* went further and analyzed respondents closer to the river versus further away. The newspaper discovered that the people of St. Louis city and county opposed the project by 60 percent, with only 22 percent approving. Outstate, 57 percent opposed while 16 percent favored, with 27 percent expressing no opinion. In the Kansas City area, furthest removed from the effects of the dam, 28 percent opposed and 24 percent favored the project with 48 percent having no opinion.⁶⁹ The polls indicated strong opposition to the project statewide, although this significant opposition, some believed, would be neutralized by the regional nature of the referendum. A strong turnout in the rural areas could lead to victory for the project.

To the dismay of dam proponents, many of the issues surrounding the project tended to sway more people against it than for it. The question of the endangered species had hung over the project since the discovery of the Indiana bat. The Higgins' eye pearly mussel, another endangered species, figured less prominently. It had been reported in several locations nationally besides the Meramec; in the Meramec Basin, it had been observed only in Crawford County. Supporters of the project argued that the mussel could adapt to the changed environment, but environmentalists challenged their contention. The Endangered Species Act of 1973 became more ominous for the dam supporters when, in June of 1978, the U.S. Supreme Court prevented the completion of the Tellico Dam and Reservoir on the Little Tennessee River because it threatened an endangered species, the snail darter, a seemingly inconsequential little fish. Proponents of the Meramec project pointed out that the snail darter was rarer than the Indiana bat. Few snail darters were left, but the bat survived in other places besides the Meramec.⁷⁰ This apparent rationalization, however, proved unconvincing.

If that were not enough, Major General Charles McGinnis, Director of Civil Works, in June 1978, recommended to the House Subcommittee on Public Works that Congress delete the Meramec and four other projects from 1979 funding. McGinnis, when asked why he was testifying against a Corps project, replied: "we are part of the executive branch and must present the presidential views. I don't want an article to indicate that there is some compulsion in this. It is a normal procedure."⁷¹ This was the typical and to some, appropriate response of an Army officer following his orders, whether he felt the orders the best course or not. The St. Louis District tried to avoid political involvement and watched from the sideline as the fate of the Meramec project was decided.

Much to the chagrin of dam supporters, even concerns that might be used to convince the public of the dam's wisdom proved ineffective. For instance, with the growing awareness in the 1970's of dwindling natural resources, concern about the future availability of reliable water supplies arose. While not part of the Meramec study per se, this concern could certainly influence the future of the reservoir projects in the Meramec Basin. In May 1977, the Universities of Missouri at Rolla and Columbia had begun an 18 month investigation of future water supply needs in the Meramec Basin and Jefferson County, funded by \$336,000 from the Corps. Their goal was to determine if sufficient supplies existed for the present and for 100 years into the future. But this study would not be ready for a year and a half and thus would not have an impact on the election.⁷²

Defeat at the polls

It was a hard-fought campaign, at times straying from the issues and employing questionable political tactics. Environmentalists criticized the Meramec Basin Association for its \$174,000 low-key advertising campaign. A controversy arose over a 90 second anti-dam advertisement narrated by Marlin Perkins, noted former director of the St. Louis Zoo and star of the television series "Wild Kingdom," which ran before features at Wehrenberg Theatres. The theaters' owner, Ronald Krueger, had been engaged in a legal dispute with the Corps over land he owned in the basin. When approached by the press, he refused to reveal the names of those who had paid for the advertisement. Supporters of the dam questioned the propriety of this tactic.⁷³

Special interest groups also became active on both sides. On the pro-dam side, organized labor had supported the dam from the time that the question of a referendum had arisen in the state legislature. To them, the project meant jobs. In contrast, businessmen from the Ozarks, Table Rock Lake, and Lake Taneycomo allegedly contributed to opposition coffers. They feared that the Meramec Reservoir would siphon off tourists who would otherwise use their recreational facilities.⁷⁴

When election day arrived on August 8, the vote surprisingly was a lopsided victory for dam opponents. (See Table 3.1) The project was approved by a majority in only three counties: Crawford, where most of the dam was to be located, with 57 percent; Washington with 56 percent; and Jefferson with 51 percent. None of the proposed lake project was in Jefferson County, but the county's water supply problems had been a focus of the pro-dam campaign; it obviously had an impact. Franklin

County, where a very small segment of the reservoir would be located, failed to approve the project by a very close margin.⁷⁵ Overall, nearly 64 percent of the voters opposed the project.

For better or worse, the populace had voted. Proponents and opponents alike had pledged to abide by the outcome, and the results were not even close. What to do with the land that had already been acquired was the only real remaining question. By the time of the referendum, 72 percent of the land for the entire project was Government property. Consequently, real estate issues became the final controversy in the history of the project.

Many reasons could be suggested for the opposition's victory. The referendum had included areas that would not directly feel the economic and flood control impact of such a project, such as St. Louis, which has a large population. Recreation benefits for these voters did not compensate for the environmental damage that was emphasized in the opposition's campaign. Corps personnel and other supporters went so far as to suggest that inaccurate and even misleading information obfuscated the real issues and created undue concern for environmental damage. Whether these accusations are valid or not is hard to evaluate since, as has been mentioned before, the two sides had different criteria for judging. But certainly, scientific and technological constraints on data acquisition and reinterpretation left questions to be answered.

A further factor affecting the outcome was the impact of the political leaders. Strong political support in the 1960's was replaced by lukewarm supporters and even opponents by the 1970's. Jimmy Carter was determined to end "pork barrel" projects. Senator Danforth was an outspoken opponent. Senator Eagleton and Governor Teasdale were ambivalent, refusing to commit to the plan, contenting themselves with abiding by the referendum's results.

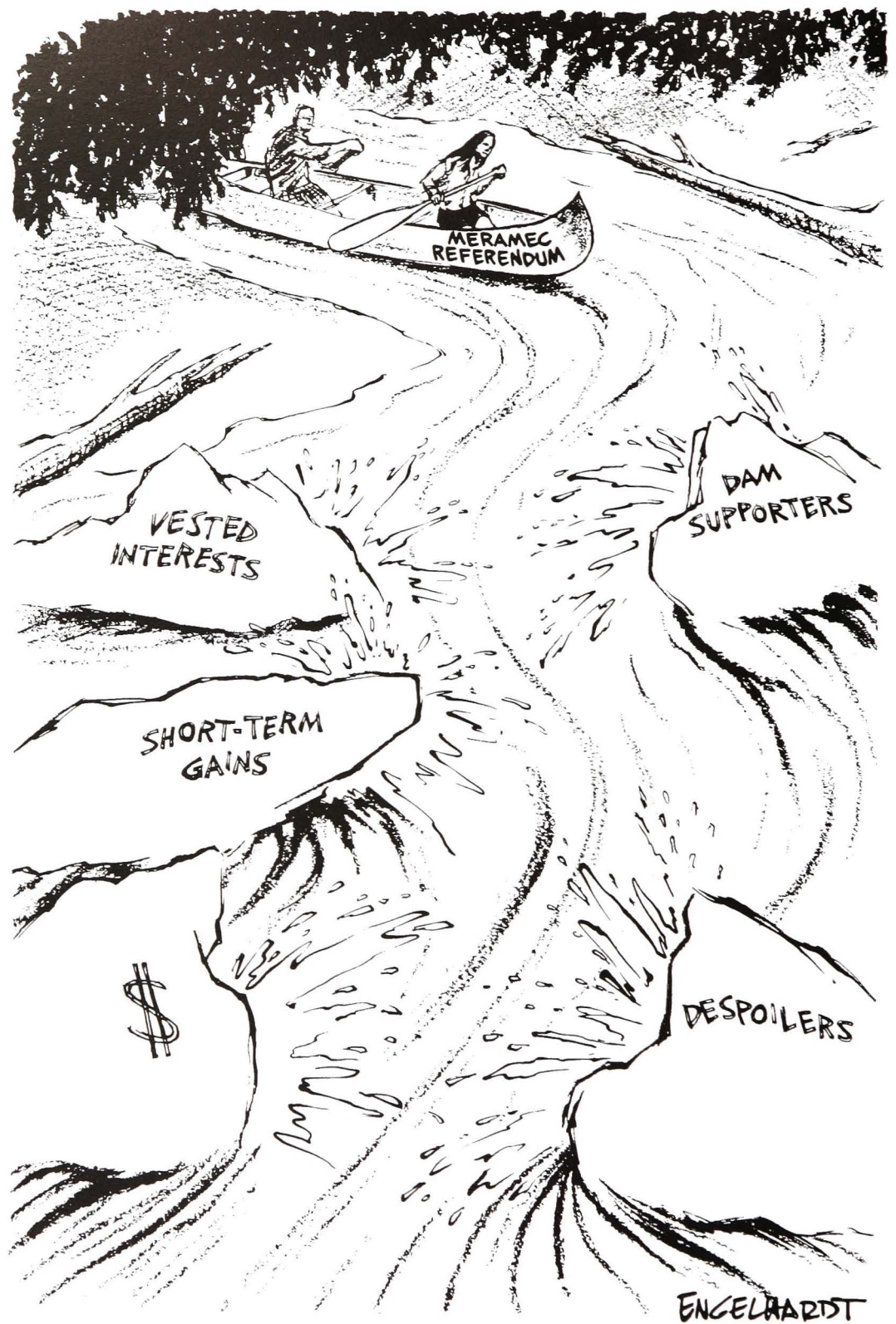
From the perspective of the Corps of Engineers, one further factor should be mentioned. The Army engineers could see the value of the plan and tried to explain why. By their engineering and cost-benefit evaluation, the Meramec project had much to offer, yet they could not convince the Missouri citizens. Although the Corps was primarily the executor of programs created and funded by Congress, it was the most vulnerable target for the opponents. Environmentalists in particular believed the Corps was insensitive to the environment. Try as it may, the St. Louis District could not dispel this image, making it difficult to convince much of the public of the project's value.

TABLE 3.1

Meramec Dam Referendum

| St. Louis Wards | For | Against | County Townships | For | Against |
|--------------------|--------|---------|---------------------|--------|---------|
| 1 | 286 | 563 | Airport | 2,645 | 4,681 |
| 2 | 372 | 829 | Bonhomme | 4,225 | 7,384 |
| 3 | 243 | 383 | Clayton | 4,109 | 8,402 |
| 4 | 209 | 373 | Concord | 6,452 | 10,097 |
| 5 | 74 | 187 | Creve Coeur | 4,262 | 11,534 |
| 6 | 557 | 998 | Ferguson | 3,323 | 7,505 |
| 7 | 346 | 901 | Florissant | 3,374 | 7,286 |
| 8 | 520 | 1,395 | Gravois | 6,018 | 10,995 |
| 9 | 898 | 1,567 | Hadley | 2,544 | 6,751 |
| 10 | 887 | 1,911 | Jefferson | 3,709 | 8,782 |
| 11 | 1,103 | 2,048 | Lemay | 6,290 | 9,636 |
| 12 | 2,175 | 3,694 | Lewis & Clark | 3,442 | 6,442 |
| 13 | 1,707 | 3,329 | Meramec | 1,740 | 2,219 |
| 14 | 1,697 | 3,407 | Midland | 3,282 | 5,928 |
| 15 | 1,054 | 2,606 | Missouri River | 5,050 | 9,106 |
| 16 | 1,951 | 3,917 | Normandy | 2,467 | 5,406 |
| 17 | 466 | 1,189 | Northwest | 4,190 | 7,342 |
| 18 | 186 | 389 | Queeny | 6,092 | 8,838 |
| 19 | 161 | 280 | St. Ferdinand | 3,877 | 8,205 |
| 20 | 494 | 1,003 | Spanish Lake | 4,052 | 8,546 |
| 21 | 491 | 870 | Totals | 81,143 | 155,085 |
| 22 | 199 | 330 | Other Counties: | | |
| 23 | 2,080 | 3,697 | St. Charles | 7,707 | 15,680 |
| 24 | 1,387 | 2,518 | Franklin | 7,721 | 7,799 |
| 25 | 635 | 1,590 | Washington | 2,262 | 1,770 |
| 26 | 252 | 501 | Crawford | 3,182 | 2,438 |
| 27 | 819 | 1,712 | Phelps | 3,510 | 3,774 |
| 28 | 712 | 1,725 | Iron | 1,154 | 1,631 |
| Totals | 21,961 | 43,912 | Dent | 1,492 | 2,404 |
| | | | Maries | 585 | 1,267 |
| | | | Gasconade | 750 | 2,726 |
| | | | Jefferson | 6,552 | 6,403 |
| | | | St. Francois | 3,492 | 4,868 |
| | | | Totals | 38,407 | 50,780 |

Source: *St. Louis Post-Dispatch*, 9 August 1978.



Challenge

Cartoon by Engelhardt in the St. Louis Post-Dispatch. June 14, 1978
(Reprinted with permission)



**'We Make Progress, Too, You Know—Even If It Is
Only One Ring A Year'**

Cartoon by Engelhardt in the St. Louis Post-Dispatch. June 12, 1978
(Reprinted with permission)

Doesn't Hold Water



St. Louis Globe-Democrat July 24, 1978

(From the Collections of The St. Louis Mercantile Library Association)

Notes-Chapter 3

1. "Basin Members Have Big Stake in Dam Acreage," *St. Louis Post-Dispatch*, Nov. 24, 1967 (Hereinafter cited as *P-D*); "Five Firms Own 3,741 Acres in Meramec Area," *P-D*, Nov. 26, 1967; "Five Meramec Directors Own Reservoir Land," *P-D*, Nov. 27, 1967; "Meramec Land Owners Deny Seeing Favors," *P-D*, Nov. 29, 1967; Leon McKinney noted that some of the charges involved the Corps "being in bed with land speculators"; Interview with Leon McKinney, Aug. 11, 1987.

2. Part of the cost increase could be attributed to the rise in the inflation rate during the 1970's; but some attributed the problem to the increased land acquisition costs brought about by speculation; see, for example, "The Beginning of Blocking the Dam," *P-D*, Feb. 28, 1977.

3. "NEPA Challenges the Rationale Behind Meramec Park Dam," *Clarion*, Oct.-Nov. 1971.

4. Public Law 91-190 (1 Jan. 1970), *National Environmental Policy Act of 1969*, 42 U.S.C. 4321-4347; Frederick J. Dobney, *River Engineers on the Middle Mississippi: A History of the St. Louis District, U.S. Army Corps of Engineers* (Washington, D.C.: GPO, 1978), p. 154; Beatrice H. Holmes, *History of Federal Water Resources Programs and Policies, 1961-70* (Washington, D.C.: GPO, 1949), pp. 106-7, 116-117.

5. Environmental Statement, Meramec Park Lake, Missouri, Nov. 6, 1970, District Historical Files.

6. "Recreational Gain, Scenic Loss in Meramec Park Plan," *St. Louis Globe-Democrat*, Dec. 27, 1970 (hereinafter cited as *G-D*).

7. "Damning the Meramec Dam," *P-D*, Feb. 27, 1977.

8. "Meramec Fight Makes Strange Bedfellows," *G-D*, Nov. 15, 1976.

9. "Environmentalists: 'No' to Meramec Lake Project," *G-D*, Apr. 27, 1971; "Proposed Dam On Meramec Is called Ecological Threat," *P-D*, Apr. 27, 1971.

10. Mark W. Paddock to Colonel Carroll LeTellier, June 24, 1971, District Historical Files.

11. Reply to comments contained in letter from Coalition for the Environment dated June 24, 1971 concerning Environmental Statement on Meramec Park Lake, Missouri, District Historical Files.

12. Litigation Report, *Sierra Club et. al v. Robert Froehlke, et. al.*, Dec. 26, 1973, U.S. District Court, Eastern District of Missouri, *ibid.*
13. "Meramec Park Dam Project Faces Two-Year Setback," *Washington Missourian*, Feb. 11, 1971; "Meramec Park Dam Delayed," *P-D*, Feb. 25, 1973.
14. "Citizen's Committee Replies to Meramec Basin Ass'n," *Tri-County News*, June 20, 1973.
15. Litigation Report, *Sierra Club, et. al. v. Robert Froehlke, et. al.*; Memorandum: Meramec Litigation Status, Aug. 27, 1975, District Historical Files.
16. Interview with Robert Muffler, May 20, 1987; Muffler, who was co-counsel in the litigation representing the Federal government, stressed that interest groups only provided "moral" support in the case.
17. Litigation Report, *Sierra Club, et. al. v. Robert Froehlke, et. al.*; Memorandum: Meramec Litigation Status, Aug. 27, 1975, District Historical Files.
18. U.S. Army Corps of Engineers, St. Louis District, *Meramec Park Lake Environmental Statement Final*, August 1973. The full report is an extensive two-volume analysis.
19. *Sierra Club, et. al. v. Robt. F. Froehlke, et. al.* No. 72C584 (3), Dec. 26, 1973, U.S. District Court, Eastern District of Missouri, District Historical Files.
20. "Bond Backs Union Lake Plan for Meramec Basin," *G-D*, June 19, 1974.
21. "Low Bid on Meramec Dam Work," *P-D*, Mar. 20, 1974; "Sounds of Hammers Echo Over Meramec Lake Project," *G-D*, July 4, 1974.
22. Interview with Michael Dace, Feb. 15, 1985.
23. *Lester Dill et. al. v. James R. Schlesinger et. al.*, No. 74-426, June 21, 1974, U.S. District Court, Eastern District of Missouri, District Historical Files; see also, "Would Sue to Save 3 Caves," *P-D*, Mar. 17, 1974; "Cave Owners File Challenge to Building of Meramec Dam," *G-D*, June 21, 1974; "Tunneling Into The Meramec Basin Controversy," *G-D*, July 19, 1974; "Data Shows Meramec Plan Will Be Safe, Official Says," *G-D*, July 20 1974; "Cave Study for Dam Called Inadequate," *P-D*, July 20 1974.
24. *Lester Dill et. al., v. Schlesinger*, District Historical Files; Opinion of District Counsel, Meramec River, Missouri, undated, *ibid.*
25. "10,000 Bats May Bar Dam on Meramec," *P-D*, Nov. 11, 1974; "Interior Dept. Seeks to Delay Meramec Dam," *P-D*, Oct. 11, 1974. Colonel T.R. Peterson, District Engineer at the time reflected a prevailing suspicion within the St. Louis District when he declared that the Endangered Species Act was being "prostituted" by those who were less concerned about the bats, and more intent on stopping the project by any means; interview with Colonel T.R. Peterson, May 19, 1983.

26. *Sierra Club, et. al.*, transcript of trial, Nov. 25-27, 1974, District Historical Files; "Meramec Dam Project Upheld by U.S. Judge," *P-D*, Mar. 19, 1975; "Work on Meramec Park Lake OK'd," *G-D*, Mar. 20, 1975; Guy Jester attributed the Corps success in the courts to a conscientious effort to complete a reputable Environmental Impact Statement despite the lack of experts in this area; interview with Guy Jester, Aug. 10, 1987.

27. *Sierra Club, et. al. v. Robert F. Froehlke, et. al.*, appeal submitted Sept. 10, 1975, No. 75-1252, Eighth U.S. Circuit Court of Appeals, District Historical Files.

28. University of Missouri-Columbia, School of Forestry, Fisheries, and Wildlife, *An Evaluation of the Status of Myotis Bats in the Proposed Meramec Park Lake and Union Lake Project Areas, Missouri*, Feb. 1977. The researchers concluded that serious damages would be done to the bats' habitat. Even though "protection and wise management" could at least partially offset the "serious impacts of the lakes," if all the potential impacts were to be avoided, "the only just solution is a decision not to build the lakes."

29. "Orders Engineers Report on Meramec Sites' Dams," *P-D*, Sept. 10, 1975; "Court Orders Report on Dam, Bats," *G-D*, Sept. 11, 1975; "Army Says Work on Dams Will Not Endanger Bats," *G-D*, Sept. 24, 1975.

30. Litigation Report, *Lester Dill, et. al. v. James R. Schlesinger, et. al.*, District Historical Files; "Cave Owner Warns of Dam's Effect," *P-D*, Nov. 4, 1975.

31. *Sierra Club, et. al. v. Robert Froehlke, et. al.*, No. 75-1252, U.S. Eighth Circuit Court of Appeals, Apr. 23, 1976, District Historical Files; "Ruling Dams Hopes of Meramec Foes," *G-D*, Apr. 24-25, 1976; "Meramec Dam Upheld by Appellate Court," *P-D*, Apr. 23, 1976.

32. "Corps of Engineers Plans to Buy Onondaga Cave," *G-D*, June 17, 1976; "Dill Drops Lawsuit Against Meramec Lake," *Tri-County News*, May 19, 1976; Dill never sold Onondaga Cave to the Federal government, but after his death, the Nature Conservancy, a conservation organization, purchased the cave and surrounding property from the Dill estate and donated it to the state of Missouri for a state park.

33. "\$6,800,000 Meramec Fund Bill is Signed," *P-D*, Dec. 27, 1975; "President Signs Meramec Basin Development Bill," *G-D*, Dec. 27-28, 1975; U.S. Army Corps of Engineers, St. Louis District, *A Chronology of the Corps of Engineers and Missouri's Meramec Basin*, 1984, pp. 58-59 (hereinafter cited as *Meramec Chronology*).

34. Interview with Robert Muffler, May 20, 1987; interview with Leon McKinney, Aug. 11, 1987.

35. "Buying Meramec Plain an Alternative to Dam," *P-D*, July 11, 1973. The Corps' response, besides challenging the Interior Department official's figures, was that the dam and reservoir were more beneficial because they provided more than just flood control benefits.

36. "Interior Department Suggests Meramec Dam Unneeded," *P-D*, Dec. 7, 1975; "State Official Assails U.S. Meramec Letter," *P-D*, Dec. 7, 1975; "Interior Official Accused of Anti-Meramec Dam Bias," *G-D*, Dec. 9, 1975; "Interior Dept. Contradicts Meramec Denial," *P-D*, Dec. 9, 1975; "Study May Lend Support to Free-Flowing Meramec," *P-D*, Dec. 10, 1975; "Interior Dept. Calls Meramec Dam a Project of Convenience," *P-D*, Dec. 14, 1975.

37. Jerry Sugerman, "Meramec Alternative Plan," *Ozark Sierran*, Aug. 1976; "Sierra Club Proposes Alternate Plan to Meramec Dam Project" *Outdoors Today* June 10, 1976; For future interest in the plan, see "Two-Year-Old Plan Revived As Meramec Dam Alternative," *P-D*, Aug. 13, 1978.

38. *Sierra Club. et. al. v. Robert Froehlke, et. al.*, No. 75-1252, U.S. Eighth Circuit Court of Appeals, Apr. 23, 1976.

39. See, for example Barry Allen and Mina Hamilton Haefele, *In Defense of Rivers: A Citizens' Workbook on Impacts of Dam and Canal Projects*, prepared by the Delaware County Conservation Association Stillwater, New Jersey. Specifically, sections entitled "Guidelines for Damfighters" and "Winners and Losers" illustrate the obstructionist tactics advocated; interview with Michael Dace, Feb. 15, 1985. Dace was adamant in his criticism of such tactics employed by the opposition.

40. "Meramec Opponent Cites Teton Dam Break," *P-D*, June 8, 1976; so disillusioned were many with the project that they ignored the fact that the Teton Dam was not a Corps of Engineers project; interview with Leon McKinney, Aug. 11, 1987; Meramec Park Dam, Projected Testimony, Dam Design, undated, District Historical Files. The other Corps project cited as having a worse foundation than the Teton Dam was the Gathright Dam in Virginia.

41. Jimmy Carter, *Keeping Faith: Memoirs of a President* (New York: Bantam Books, 1982), p. 78.

42. "Exultant Carter Has Harsh Words for Meramec Dam in Visit Here," *P-D*, Mar. 24, 1976.

43. "Ichord Solidly Backs Construction of Meramec," *Sullivan Independent News*, Oct. 29, 1975; "Senator Young Backs Meramec Dam Plan," *P-D*, May 29, 1976. Another congressional candidate from St. Louis, Richard Gephardt, in June avoided opposition or support by calling upon Governor Bond to hold a statewide referendum on the project; "Gephardt Proposes Referendum on Dam Issue," *G-D*, June 28, 1976.

44. "Governor to Re-Evaluate Position on Basin Plan," *St. Clair Chronicle*, 5 Nov. 1975; "Bond for Meramec Dam Despite Danforth View," *G-D*, Apr. 23, 1976; *P-D* editorial, Sep. 15, 1976.
45. "Danforth 'Leaning Against' Meramec Dam," *P-D*, Dec. 3, 1975; "Danforth Urges Halting Meramec Dam," *P-D*, Apr. 22, 1976.
46. "Hearnes Still Backing Major Meramec Dam," *P-D*, May 18, 1976; "Rep. Symington Opposes Danforth Idea on Dam," *P-D*, May 21, 1976; "Meramec Dam Plan Opposed by Litton," *P-D*, June 1, 1976.
47. "Meramec Dam Proponent Criticizes Auto Club Poll," *P-D*, July 27, 1976.
48. A sampling of representative editorials serves to exemplify the position of the two St. Louis papers. The *Globe-Democrat* consistently supported the project from its inception in the 1960's to its demise in 1978; see, for example, a December 19, 1963 editorial, which declared that "now is the time to begin the development in earnest." Following from that, see the following editorials: "Urgent Need for Meramec Lake Water," *G-D*, Sept. 6, 1976; "Vote 'yes' on the Meramec," *G-D*, Aug. 5-6, 1978. By comparison the *Post-Dispatch* on December 19, 1963 called the project "a practical necessity" for the area's population, a real contrast to its editorial opinion by the mid-1970's. See for example the following editorials: *P-D*, Sept. 15, 1976, which says election of candidates in November gave the people the chance to speak out on the Meramec; *P-D*, Aug. 6, 1978, a half page editorial urging a "no" vote on the project.
49. "Corps to Halt Meramec Spending," *P-D*, Feb. 22, 1977.
50. See for example, "House Ignores Carter, Votes Money for Meramec Project," *G-D*, June 15, 1977.
51. "Eagleton Offers Compromise to End Meramec Deadlock," *G-D*, Apr. 7, 1977.
52. News Release, Mar. 23, 1977, District Historical Files.
53. Digest of Public Meeting, Meramec Park Lake, Mar. 26, 1977, Sullivan, Mo., District Historical Files; Transcript of Public Meeting, Sullivan, Mo., Mar. 26, 1977, *ibid.*; "Marathon Dam Hearing Claims No Clear Victor," *G-D*, Mar. 28, 1977; "Cheers, Boos at Meramec Dam Hearing," *P-D*, Mar. 27, 1977.
54. Safety Review of Meramec Park Reservoir, Apr. 11, 1977, signed by Ernest Graves, Major General Director of Civil Works, Office of Chief of Engineers, District Historical Files.
55. "Meramec Dam Benefits Found to Exceed Cost," *G-D*, Oct. 10, 1977; Extract of President's "Hit List," Meramec Park Lake, Corps of Engineers, Missouri, District Historical Files.

56. Digest of Public Meeting, Meramec Park Lake, May 26, 1977, District Historical Files; Extract of President's "Hit List," Meramec Park Lake, Corps of Engineers, Missouri, *ibid.*

57. "Meramec Funds Still Deleted After Review by President," *P-D*, Apr. 16, 1977; Extract of President's "Hit List," Meramec Park Lake, Corps of Engineers, Missouri, District Historical Files.

58. "Meramec Dam Data Suppressed, Ex-Official Says," *G-D*, Dec. 18-19, 1982. Michael Dace reflected the position of those in the District who, despite Carter's opposition, still believed in the viability of the project when he later declared that from an engineering standpoint just because the president calls it a "rotten project," that does not change the facts; interview with Michael Dace, Feb. 15, 1985; see also, interview with Leon McKinney, Aug. 11, 1987.

59. "Meramec Dam Delayed at Least a Year," *G-D*, July 21, 1977; "Congress Votes to Drop Meramec Dam Project," *P-D*, July 26, 1977.

60. See, for example, "Sierra Club Wants State-Wide Vote," *G-D*, Sept. 14, 1976; "Gephardt Proposes Vote on Dam Issue," *G-D*, June 28, 1976.

61. "Eagleton: Halt Meramec Dam for Vote," *P-D*, Dec. 18, 1976; "Rep. Symington Opposes Danforth Idea on Dam," *P-D*, May 21, 1976; "Meramec Issue Is Called Open to Mediation," *P-D*, June 15, 1976.

62. "Sierra Club Wants State-Wide Dam Vote," *G-D*, Sept. 14, 1976; "Backers of Meramec Dam Referendum Seek State-Wide Vote," *P-D*, Jan. 26, 1977.

63. "Frappier Profiles Bill on Dam Referendum," *St. Clair Banner News*, Dec. 20, 1976.

64. "Special Session to Omit Dam Issue," *G-D*, Aug. 8, 1977; "Teasdale Rejects Request for Study of Referendum on Meramec Dam," *P-D*, Aug. 8, 1977.

65. "Last Ditch Effort for Meramec Dam," *G-D*, Aug. 1, 1977; "Ichord Seeking Referendum on Meramec Dam Project," *P-D*, Aug. 1, 1977; "Senate Ok's Dam Referendum," *G-D*, Jan. 31, 1978; "House Clears Meramec Dam Referendum," *P-D*, Apr. 4, 1978; "Teasdale Signs Dam Voting Bill," *G-D*, Apr. 13, 1978.

66. "Teasdale Signs Meramec Dam Referendum," *P-D*, Apr. 12, 1978. The bill called for a regional election to be held in St. Louis city and the 12 counties of St. Louis, Crawford, Washington, Franklin, Jefferson, Iron, Phelps, Dent, St. Francois, Maries, Gasconade, and St. Charles.

67. "Lake Is Really None of Their Business," *Cuba Free Press*, Dec. 16, 1976.

68. "Meramec Dam Favored 2 to 1 in Poll, Burlison Says," *G-D*, Mar. 20, 1977; "Majority in Ichord's Poll Backs Dam Project," *G-D*, Apr. 6, 1977.

69. "Meramec Dam Proponent Criticizes Auto Club's Poll," *P-D*, July 27, 1976; "Globe Poll Shows Apparent Strong Anti-Dam Feeling," *St. Clair Chronicle*, Oct. 13, 1976.

70. "Snail Darter KO's \$116 Million Tennessee Dam," *P-D*, June 15, 1978; "Meramec Park Lake, Missouri, Endangered Species," Apr. 1, 1977, unattributed article in District Historical Files.

71. "Corps Toes Line to Block Meramec Dam," *G-D*, June 30, 1978.

72. "National Energy, Water Needs Could Revive Meramec Dam Project," *P-D*, Sept. 8, 1977; University of Missouri, *Spectrum*, Vol. 4, Nov. 4, 1977.

73. "Secret Plan Outlines Massive Pro-Dam Drive," *P-D*, June 4, 1978; "Head of Theaters Showing Anti-Dam Film Target of Suit," *G-D*, July 26, 1978; "Theater Chain Owner Sees Danger in Dam," *P-D*, July 26, 1978. Some Corps personnel also recalled rumor campaigns that suggested that the rural communities around the project would be inundated by blacks from the cities, an obvious exploitation of racial fears. Leon McKinney declared that, faced with these alleged threats to their rural way of life, "people dug in in concrete up to their knees"; interview with Leon McKinney, Aug. 11, 1987; see also interview with Roger Cuddeback, Aug. 10, 1987.

74. "Meramec Dam Vote Appears in Jeopardy," *G-D*, Jan. 21, 1977; "Lake Competition a Factor in Meramec Vote," *P-D*, Feb. 4, 1977; interview with Leon McKinney, Aug. 11, 1987. In this interview, McKinney acknowledged labor's interest in the project, but said labor "backed off" because they faced a tough fight in Missouri over right-to-work legislation and did not want to antagonize any voters unnecessarily.

75. "Voters Reject Dam Plan, But Land Question Lingers," *P-D*, Aug. 9, 1978.

4

Chapter 4 **Deauthorization and Land Disposal**

The 1978 vote was nonbinding, but in essence it doomed the Meramec Park Lake Reservoir. The political leaders in Washington received the message clearly. With the dam's rejection, little hope remained for the other dams in the overall plan, although later events would spark a flicker of interest in their revival.

Yet the dam's demise did not quell the controversy. Questions still remained, and the basin's problems persisted. The question of future water supplies, for example, a background concern for years, became a significant factor, particularly in the latter stages of the dam fight. The University of Missouri-Rolla water supply study was scheduled for completion in 1979. The flooding issue, which from the beginning had been of paramount importance, had yet to be satisfactorily addressed. The manner of officially deauthorizing the dam had to be resolved; related to that was the disposal of land the Corps had acquired over more than a decade.

In the 1970's atmosphere of diminishing resources and energy shortages, the specter of future water supply shortages haunted Franklin, Crawford, and Washington Counties. As early as 1977, civic leaders were seriously considering establishing water conservancy districts as a solution. By state law, such districts would allow the Corps of Engineers to help provide for water needs. Feasible solutions not only included drilling new wells, but also constructing reservoirs, hence a possible justification for continuing the Meramec Dam and Reservoir. Advocates of a conservancy district cited Rend Lake in Illinois, a successful reservoir planned and developed by the St. Louis District, as an example of what they envisioned for the Meramec Basin.¹

Opponents accused many who wanted water conservancy districts of using these districts as a ploy to save the Meramec Park Lake. While this was probably true in some cases, it could not be denied that there was a real potential of future water shortages that would retard both rural growth and urban industrial development. When the University of Missouri-Rolla completed its water supply study in June 1979, the problem was documented. The report concluded that most of the area's water supply needs could be met with present facilities up to the year 2080 and beyond, except in the possible extreme case of a severe drought. South St. Louis County, Jefferson County, and a few other areas would have sufficient supplies after 2080. But authorities could not be secure in the belief that they had a century to resolve the water supply problem. The study predicted that such a severe drought such as it referred to had a real chance of occurring between 2000 or 2010. The study recommended possible

measures, including pumping water from the Missouri and Mississippi Rivers to the Bourbeuse River. This, however, created drawbacks like sedimentation and contamination. Another alternative was a reservoir, such as that planned for Pine Ford or Irondale.² The water supply issue concerned government planners well into the 1980's.

Water supply problems paralleled continuing worries about flooding. In 1981, the Missouri Department of Natural Resources and the Upper Mississippi River Basin Commission released the results of a year-long study of the flood problem on the Meramec River between Meramec State Park and St. Louis. *Out of Harm's Way*, as it was entitled, estimated that the average annual flood loss on this stretch of the river was \$14.3 million. Realizing that the reservoir was no longer a possibility, it postulated several alternative solutions. These were basically nonstructural alternatives: the purchase by Federal and state agencies of privately owned land in the flood plain; restrictions on quarrying and dredging operations; updating emergency preparedness plans in the communities; planning and zoning to keep development away from the flood plain; planting trees for bank stabilization; city and county erosion and sedimentation control ordinances; and reduction of storm water runoffs from housing developments. It also targeted specific problem areas for special consideration, such as a detailed plan for a levee at Valley Park.³ Action, however, was postponed pending congressional authorization and appropriations.

The deauthorization of the Meramec Dam, which was essentially a foregone conclusion, was delayed pending development of a procedure for the disposition of real estate purchased for the project. The Missouri congressional delegation struggled to reach a consensus on how to resolve this politically volatile issue. The acquisition of the land — 72 percent of land required was already in Government hands—had proceeded steadily from the time that the project was first funded. The Corps began slowly, purchasing only 835 acres by 1969; by 1977 the Federal government owned 25,697 acres. (Tables 4.1 and 4.2 show the annual breakdown of acres acquired and funds expended.) As mentioned earlier in this study, the St. Louis District met with determined opposition from landowners who opposed dam construction, were reluctant to part with land that had been in their families for generations, or disputed the appraisal price offered by the Government. Consequently, while the great majority of landowners agreed to sell their property voluntarily, approximately 13 percent of the acreage had to be acquired in the courts through condemnation proceedings. The Federal government ultimately expended \$11.5 million for the land, excluding the administrative costs involved. Easement costs totalled about \$440,000.⁴

Now that the project was being deauthorized, the question of what to do with all of the land became a major dilemma. Some of the landowners wanted their property back; others no longer were interested. Additionally, a fair price for the acreage was at issue. During the 1970's, land values had escalated. Especially when dealing with acreage purchased in the early phases of acquisition, the market value had risen markedly by the 1980's. This upset many of the former owners who hoped to reacquire their real estate, since the repurchase price often exceeded their expectations.

How to deauthorize
the dam

TABLE 4.1**Meramec Project Land Acquisition**

| VOLUNTARY PURCHASES | | | | CONDEMNATION PROCEEDINGS | | |
|----------------------------|---------------|---------------|--------------------------|---------------------------------|--------------|------------------|
| Year | Tracts | Acres | Purchase Price \$ | Tracts | Acres | Deposit |
| 1968 | 3 | 75 | 18,550 | | | |
| 1969 | 21 | 760 | 250,850 | | | |
| 1970 | 28 | 1088 | 391,945 | 15 | 93 | 134,900 |
| 1971 | 76 | 2190 | 649,050 | 1 | 88 | 21,800 |
| 1972 | 87 | 4227 | 1,204,520 | 14 | 568 | 172,645 |
| 1973 | 145 | 5070 | 1,897,910 | 6 | 693 | 200,675 |
| 1974 | 59 | 4658 | 1,681,625 | 2 | 271 | 56,000 |
| 1975 | 37 | 939 | 916,270 | 30 | 192 | 174,075 |
| 1976 | 42 | 2329 | 1,380,385 | 9 | 966 | 572,930 |
| 1977 | 11 | 1277 | 863,770 | 5 | 213 | 108,525 |
| Total | 509 | 22,613 | 9,254,875 | 82 | 3,084 | 1,441,550 |

Total of Voluntary Purchase and Court Deposits for Condemnation Proceedings:

Tracts: 591

Acres: 25,697

Purchase Price plus Court Deposits: \$10,696,425

DEFICIENCY PAYMENTS BY COURT ACTIONS

| Year | Tracts | Acres | Payments |
|--------------|---------------|--------------|-----------------|
| 1972 | 7 | 9 | \$8,000 |
| 1973 | 8 | 192 | 75,559 |
| 1974 | 8 | 535 | 181,743 |
| 1975 | 12 | 200 | 75,899 |
| 1976 | 12 | 354 | 113,035 |
| 1977 | 12 | 50 | 214,180 |
| 1978 | 2 | 178 | 26,491 |
| 1981 | 1 | 75 | 25,800 |
| Total | 63 | 1,593 | 720,707 |

Total Acquisition Costs:

Voluntary Purchase \$9,254,875

Condemnation Proceedings
(Deposited with Court) 1,441,550

Deficiency Payments
(Ordered by Court) 720,70

Total Costs 11,417,132

Source: Acquisition Master Listing, September 30, 1987.

Two separate deauthorization bills were sent to Congress in 1981. Representative Wendell Bailey from Willow Springs, Missouri, sponsored a Meramec Park Lake termination bill, which intentionally left open the option of pursuing a smaller project in the future. He was responding to his rural constituents and the Meramec Basin Association, which still hoped to salvage something, perhaps a smaller dam. By the terms of his legislation, deauthorization would be followed by studies of how to dispose of the land and an evaluation of alternative solutions for the basin's chronic economic and flood problems. It avoided specific proposals for the disposition of the land, leaving that for future determination.⁵

In contrast to Bailey's plan, Senators Eagleton and Danforth introduced a bill in the Senate that sought to put the Meramec project to rest once and for all. A clearly enunciated procedure for land disposal was a critical element of this bill. They wanted land disposal and alternative solutions to the flood problems to be an integral part of the deauthorization, not merely subjects of future consideration. According to their measure, approximately one-fifth of the acres acquired, or 5,122 acres, would be transferred to the state of Missouri for use as state parks and recreation areas. The rest would be offered to previous owners at the original purchase price or current appraised value, whichever was less. Their legislation addressed the issue of the scenic and natural beauty of the river and its recreational potential by restricting development in sight of the river and providing for boat accesses and an Ozark hiking trail southwest of St. Louis. Money raised from the sale of the land was to be deposited in the Interior Department Land and Water Conservation Fund, which was used to purchase park lands.⁶

A stalemate ensued in Congress when neither side proved willing to accept the other's bill. This catapulted Congressman Robert Young, a member of the House Public Works Committee, into a critical role in the controversy. Young, caught between the two proposals, to the chagrin of both sides refused to commit himself one way or the other. At one point he precipitated a minor crisis when he tried to become more informed by inviting the St. Louis District Engineer, Colonel Robert Dacey, to come to Washington and brief him. Dacey brought along Michael Dace, the Meramec Project Coordinator, and Guy Jester, a former District Engineer and outspoken supporter of the Meramec project. The focal point of this meeting was the water supply study recently completed by the University of Missouri-Rolla and how it might tie in with the ultimate fate of the basin plan. The meeting may have been simply a case of a Congressman seeking to inform himself of the facts, but to meet with the Corps and an avid proponent of the project left some disturbing implications and impressions.

Senator Eagleton reacted sharply, accusing the Corps of lobbying. In a public letter to Lieutenant General Joseph K. Bratton, Chief of Engineers, Eagleton accused the Corps of "pumping up" Young, who is easily "pumped up."⁷ He scathingly condemned the Corps and its activities: "Left to the Corps of Engineers, all America would be converted into one mass of cement. Left to the Corps, the Mississippi would be converted into an eight-lane cement highway. The Corps consistently acts as one of the most abusive and arrogant entities." Eagleton concluded by charging that the Corps wanted "to take more land from people, despite the fact that the Meramec Dam is dead, dead, dead."⁸

Two things particularly irritated Eagleton. First, he was afraid that Young might be swayed to oppose the Eagleton-Danforth deauthorization bill. (Young did later come out in opposition to both Meramec deauthorization plans.) Second, although this may have been simply a briefing, it appeared rather inappropriate that Jester, a booster of the Meramec project and no longer a Corps employee, had accompanied Dacey, even though Jester contended that he had traveled to Washington on his own business. General Bratton met with Eagleton and tried to defuse the situation. Dacey, Dace, and Major General E.R. Heiberg, III, the Corps' Director of Civil Works, joined the general at this meeting. Bratton concluded that the St. Louis District had done nothing improper, although he implied that Dacey's decision to include Jester in the meeting was questionable. Bratton admitted that the Corps should "avoid such situations because they may appear improper."⁹ The immediate incident was smoothed over, but the animosity of Eagleton toward the Corps remained.

Despite this incident, a compromise was ultimately arranged, much of the credit going to the beleaguered Young, who had taken the heat from Eagleton. After the Senate approved the Eagleton-Danforth measure, to quickly resolve the impasse and reconcile differences, Young dropped provisions for a future study of a smaller scale project contained in Bailey's House version of a deauthorization plan. He then drafted legislation similar to the Senate bill, but with provisions satisfactory to the members of the House. Public Law 97-128 passed both houses of Congress and was signed into law by President Ronald Reagan in December 1981. Besides deauthorizing the Meramec Reservoir, the law contained several additional pertinent provisions. Between 3,382 and 5,122 acres of land, the exact amount to be determined by the Governor of Missouri, was to be deeded to the state, subject to Missouri state legislative disapproval before April 30, 1982. Within 90 days of that land transfer, the Corps was to appraise the remaining acreage and offer it back to the original owners or their heirs at the current market value. This was a change from the original Eagleton-Danforth bill that set the resale price at the lesser of the original selling price or the current appraised value. After a year, all land not repurchased by the original owners was to be offered at public auction, with the proceeds returned to the U.S. Treasury.

Aside from real estate issues, the law Young drafted gave the state of Missouri a perpetual easement along privately owned land bordering the Meramec, Huzzah, and Courtois Rivers. Section 2(h) of the law approved \$20 million for the Corp of Engineers to use to prevent flood damage along the Meramec River in St. Louis and Jefferson Counties. These funds, however, could not be used for a reservoir in those two counties. Finally, Section 2(i) instructed the Corps and state to conduct a joint water supply study of the Meramec Basin.¹⁰

This compromise legislation was historically significant. In the past, the Corps of Engineers had seldom handled the disposal of real estate. Normal procedure called for the Corps to turn the land over to the General Services Administration for disposal. However, on this occasion, the law passed by Congress ignored precedent, perhaps because of the

substantial amount of land that had to be disposed of.¹¹ The St. Louis District resignedly accepted this responsibility, anticipating the complications and problems that lay ahead.¹²

At the time that the project was deauthorized, \$35.3 million had been allocated for planning, land acquisition, and construction. Of this sum, over \$11.8 million had already gone for the purchase of land, including easements. In October 1981, at the same time that Congress was wrestling with the deauthorization legislation, Colonel Dacey tried to ascertain how much the Government might expect to recoup in selling the land. In correspondence with the Lower Mississippi Valley Division office, which would review any District plan for land disposal before it was sent on to the Office of the Chief of Engineers, he pointed out that numerous unknown factors might "severely impact" upon the assumptions he might make in estimating the return the Government would realize on the land sales. These factors included economic conditions resulting from former owners' refusal to exercise their rights to repurchase land; the market impact of the numerous disposal actions to be accomplished over a relatively short period of time, which could reduce returns for the United States; and problems encountered relative to individual parcels, such as structure removal, public abuse of the land, and commitments that might be made to landowners for restoration of public access. Nevertheless, after analyzing the figures at his command, based upon existing circumstances in 1981, he estimated that \$5.3 million might be recouped in the resale of the parcels. However, he further calculated that \$600,000 might be lost in disposing of the flowage easements.¹³ At that time, the St. Louis District had resigned itself to the fact that much of the money expended on the project would never be recovered.

Missouri inherits
land for state parks

As for the state of Missouri, it stood to inherit a small windfall with the transfer of more than 5,000 acres from the Federal government, land that could be used for public parks and recreation. Its transfer was contingent only on the Governor's formulating an acquisition plan acceptable to the state legislature by April 30. This was easier said than done. State Representative Al Nilges, who represented a district in the Meramec region around Bourbon, Missouri, became a major obstacle. Responding to pressure from his constituents, he introduced a bill in the Missouri House of Representatives denying the land to the state. His rationale for this drastic step included the belief that the land should be returned to those who had previously owned it, that the state's acquisition of the land was too ambitious and placed more land under state control than Missouri could handle given its limited economic resources, and that more land for state parks would increase the recreational use of a river already "overrun" by recreation.¹⁴

Nilges' bill encompassed a combination of old complaints and some valid issues that needed to be addressed. Although later events would show only limited interest on the part of former landowners to recover their property, their right to the land that they had sold was a recurrent theme. Perhaps Nilges exaggerated how strong this desire was. However, this was a moot point. For state officials were determined to use some of the land for state parks, and this was the expressed intent when the Federal government transferred the 5,122 acres.

TABLE 4.2

Meramec Project Easement Acquisition

| Acquired Interest (Voluntary) | | | | Compensation Proceedings In Court | | | Deficiency Payments By Court Action | | |
|-------------------------------|--------|-------|-------------------|--------------------------------------|-------|---------|--|-------|----------|
| Year | Tracts | Acres | Purchase Price | Tracts | Acres | Deposit | Tracts | Acres | Payments |
| 1970 | 1 | 3 | \$100 | | | | | | |
| 1971 | 6 | 54 | 10,600 | | | | | | |
| 1972 | 22 | 109 | 8,650 | | | | | | |
| 1973 | 25 | 141 | 29,675 | 1 | 21 | \$950 | | | |
| 1974 | 25 | 177 | 74,370 | | | | | | |
| 1975* | 30 | 458 | 103,584 | 4 | 31 | 1,980 | 1 | 20 | \$1,841 |
| 1976* | 54 | 829 | 167,574 | 8 | 65 | 8,710 | 2 | 35 | 1,260 |
| 1977 | 3 | 9 | 15,060 | 3 | 12 | 6,545 | 9 | 66 | 8,234 |
| 1978 | | | | | | | 1 | 6 | 790 |
| Total | 166 | 1,870 | 409,613 | 16 | 129 | 18,185 | 13 | 127 | 12,125 |

Total of Voluntarily Acquired Interests and Compensation Deposits:

Tracts: 182 **Acres:** 1,999 **Price:** \$427,798

Total Cost of Voluntary Acquired Interest, Compensation Deposits,
and Deficiency Payments for Easements:

Price Paid for Land Including Deficiency Payments: \$11,417,132

Price of Easements Including Deficiency Payments: 439,923

Total \$11,857,055

*These figures differ from the original figures on the *Acquisition Master Listing* due to Final Audit.

Source: *Acquisition Master Listing, September 30, 1987.*

Nilges' reservations about recreationists reflected a concern shared by some of his rural constituents who feared being overrun by the city-dwellers and having their way of life undermined. This fear would once again appear when the land was offered for sale at auction.

Beyond these motives, Nilges did raise some valid issues that the Missouri legislature had to confront before accepting title to the land. One was the state's ability to pay maintenance and other costs associated with ownership of the land. Another was the Federal requirement restricting development along the river. How would the scenic nature of the river be ensured? Until these questions were adequately answered, the state could not take advantage of Washington's offer.

To resolve the issue of the state's ability to pay maintenance costs for land received and, incidentally, to respond partially to the demands of those legislators like Nilges who wanted land returned to the original owners, a compromise was devised whereby a portion of the land would be sold by the state to cover the maintenance expenses of the lands kept for use as parks. Proceeds from the sales would be placed in a trust fund earmarked for state parks. The St. Louis District at first had some legal concern that this arrangement violated the intent of the Federal legislation, which seemed to restrict the land to public use. But this proved a minor issue. Colonel Dacey, after seeking legal counsel, determined that Missouri's plan conformed to the Federal requirements, and he gave his approval for transferring the land.¹⁵

A small dispute arose in the Missouri legislature over the means of restricting land use along the river. Finally, when the legislators agreed that a 600-foot natural, cultural, and visual easement would be most appropriate, the final obstacle standing in the way of Missouri acquiring the land was surmounted.¹⁶ The state accepted title to 5,122 acres of Meramec project land. It earmarked 1,732 acres for resale to former owners or for public sale if these former owners were no longer interested. The law further provided that proceeds of these land sales be placed in a trust fund to defray the cost of managing the remaining 3,390 acres, which became part of state park and recreation areas. Meramec State Park, Onondaga Cave State Park, and the Huzzah Wildlife Area were among those state entities expanded by land additions (see the accompanying map). The legislation banned construction of new buildings, tree cutting, and trash deposit in a corridor running 600 feet from the center of the river's channel.¹⁷

With the legal details completed, the land was deeded to the state of Missouri by Colonel Gary Beech, the new District Engineer, on October 18, 1983. The Director of the Missouri Department of Natural Resources accepted title to the real estate.¹⁸

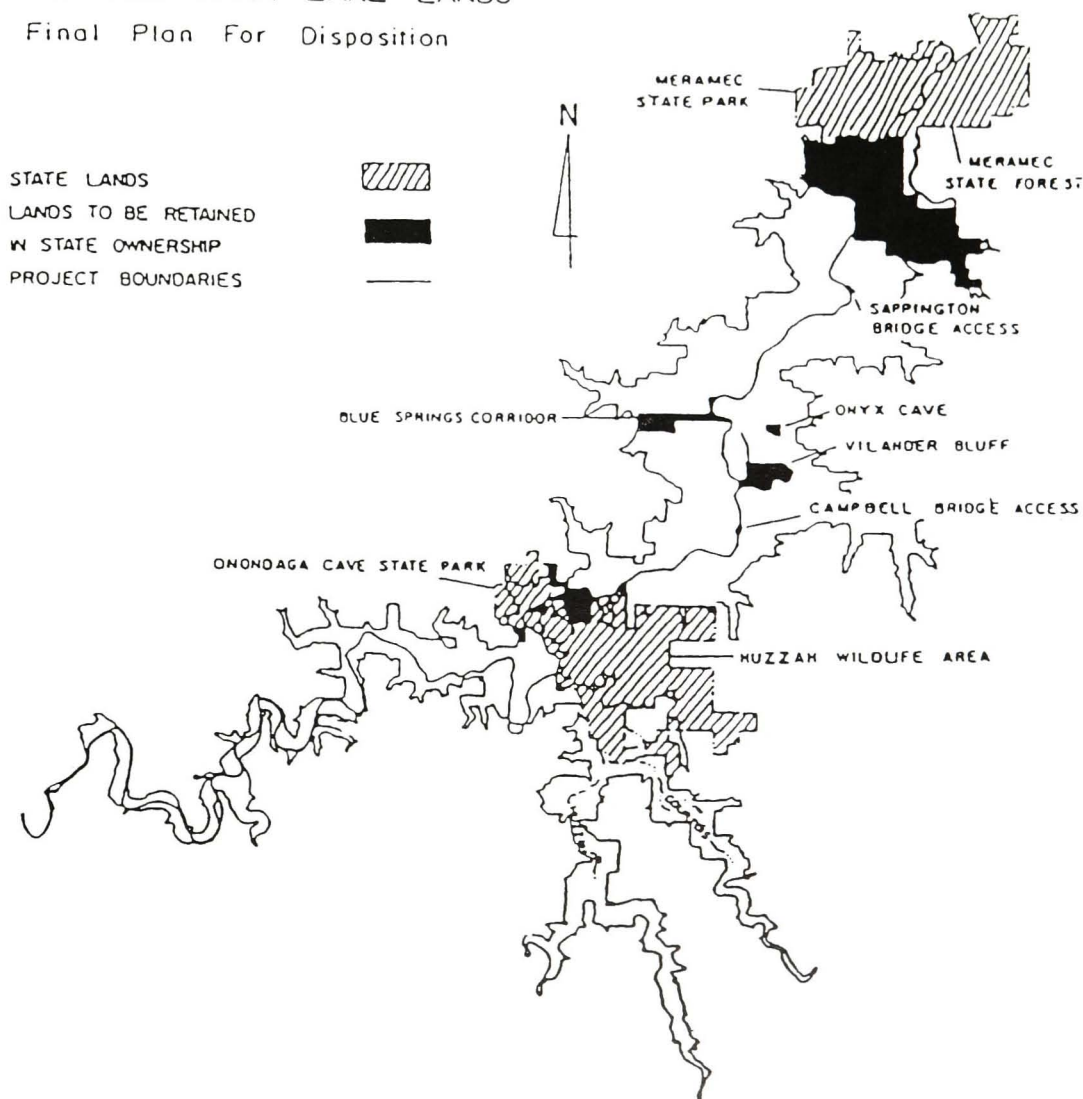
Once the lands were successfully transferred to the state, the St. Louis District turned its attention to appraising the remaining real estate as a prelude to offering it back to the original owners. According to Federal legislation, this was to be completed within 90 days, with the land to be offered at the current fair market value.

Basin residents question
Corps methods of land
disposal

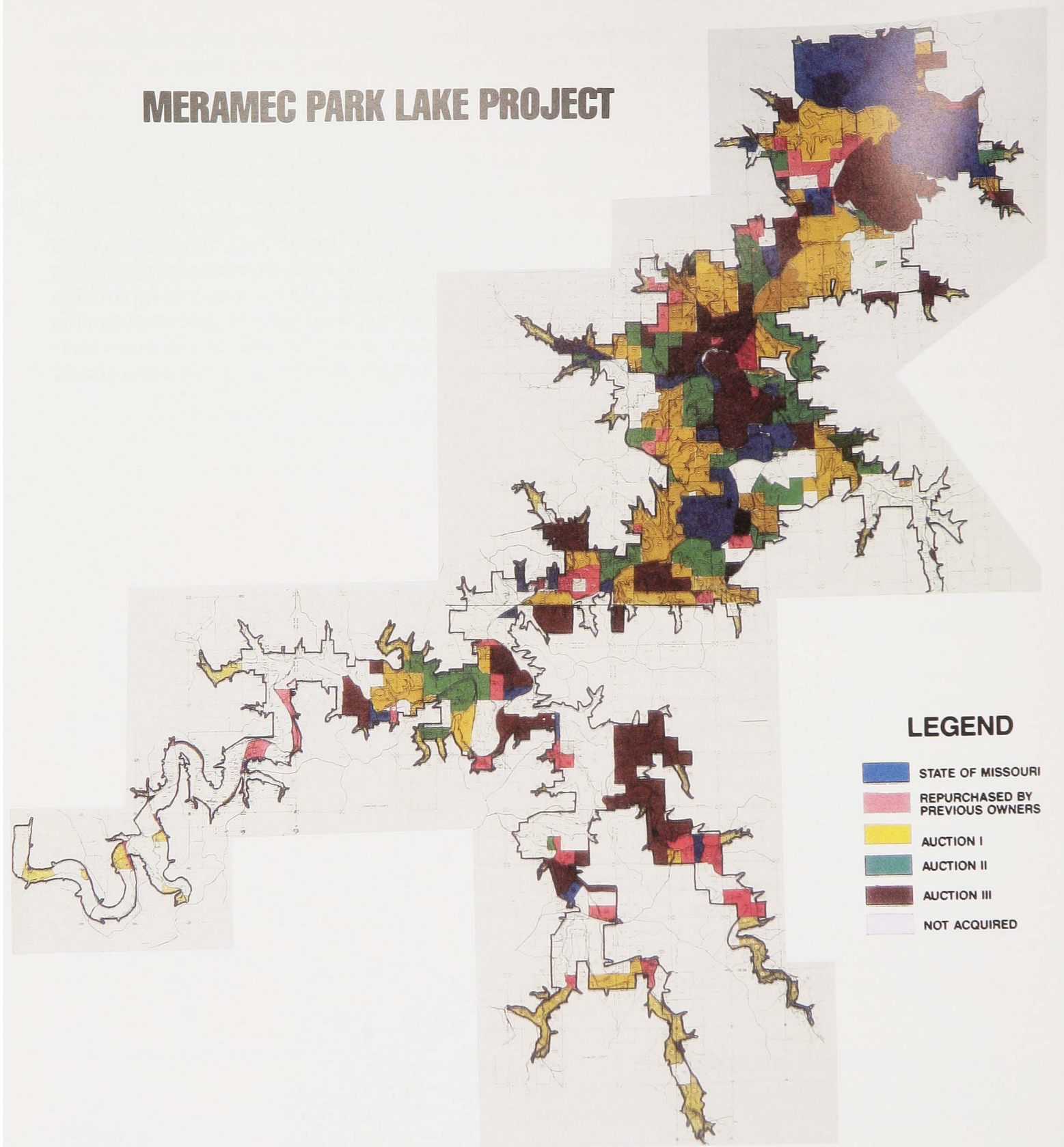
Commenting on the procedure established to determine the offering price and anticipated results, Colonel Beech sent a letter to Congressman Bill Burlison on October 24, 1984. Beech pointed out that the Corps had hired private professional appraisers to ascertain land value based upon current market values in the area, what land was bought and sold for in the private sector, and the highest and best use for the land. Corps personnel then reviewed and approved these appraisals. He predicted that the land prices established would undoubtedly reflect the increased land values, not just in the Meramec Basin, but all over. Based upon these criteria he listed, Beech explained that when former owners received their letters from the Corps, about 49 percent would be invited to repurchase their land at a price between 50 percent below and 50 percent above the original purchase price; 25 percent would be able to reacquire their property at more than 50 percent below the price; and 16 percent would

Franklin County Tribune, October 26, 1983

MERAMEC PARK LAKE LANDS
Final Plan For Disposition



MERAMEC PARK LAKE PROJECT



Meramec Project Land, Final Plan for Disposal
Source: After Action Report: Land Disposal,
Meramec Park Lake, March 1989

have to pay 50 percent or more above the original price. He categorized only 10 percent of the former owners as having to pay substantially more than the purchase price.¹⁹

The Corps, in its appraisal and offers felt it had adhered to its legal obligation to establish a fair and equitable selling price. Nevertheless, many former owners were upset after receiving letters from the St. Louis District giving them a year (until January 1985) to exercise their option to repurchase their property. The appraised values may have been the market value, but they did not feel the prices were fair. Part of the discontent involved confusion created by the wide disparity between the price the Corps had originally paid for some parcels and the price that was now set for their resale. Much of this discrepancy could logically be attributed to the changes in the real estate market. In the decade during which the land was acquired, the value of farm land had been escalating. This was a national and statewide trend, not simply a response to the Meramec project. Thus, some of the property acquired early in the acquisition phase had now grown considerably in value. This may have been reasonable, but it did not satisfy many of the former owners. They admitted that the land was more valuable, but they stressed that the Government also had to consider that formerly productive farm land had been left unattended since being purchased for the project, was overgrown with weeds, and was not, in its present state, suitable for agriculture. This, they felt, decreased its value.

Another point of confusion was the discrepancy between the value of particular tracts. Some were offered at a price considerably below the original selling price, while others were significantly higher. Often this divergence could be explained by the nature of the land when acquired. Some property had buildings and other improvements that were more valuable than the land they sat on. Over the years, these buildings had, in many cases, deteriorated, so the new appraisal value took into consideration only the land, not the deteriorating improvements. This, too, upset many who felt the asking price for their property was inflated.

Many disgruntled former owners contrasted the Corps' resale policy with the state's. Missouri gave landowners the option of getting a second appraisal if they felt the asking price was exorbitant. The Corps did not. The St. Louis District was willing to listen only to previous landowners and consider any data pertinent to assessing the land value.

Representative Nilges responded to his constituent's complaints by demanding that sale prices be established on a sliding scale based upon how long the land had been in Government hands. He argued that the substantial appreciation in the land value should not be added to the buy-back cost. Nilges cited anecdotal, but accurate, evidence of what he considered unfair appraised values: a property that had originally sold for \$30,000 now being offered back at \$50,000; a property that originally sold for \$1,000 plus a \$300 easement now appraised at \$5,000.²⁰

Nilges was expressing the outrage of a certain segment of his constituency who distrusted and had always distrusted Corps policies, especially when it came to real estate acquisition. The roots of this distrust ran deep. In 1977, for example, at the height of the controversy over the project, a Meramec Basin Landowners Association had been formed. The group then threatened to file a \$100 million class action suit against the Federal government, demanding the return of their land, as well as damages.²¹

Nothing came of that threat. But now, led by John Waller, a landowner in the basin, the association became more assertive. Waller joined with 60 other former landowners to institute a lawsuit to block the conveyance of land to the Missouri Department of Natural Resources and to seek a fairer formula for the resale of the land by the Federal government. According to Waller, the Corps had failed to take into consideration several pertinent factors in determining land values: the current condition of the land, the change in interest rates from the time the land was acquired (7 or 8 percent) to late 1983 (13 percent); and the existence of a farm recession. He argued that factoring in these and other changes would reduce land values.²²

When Waller and his supporters filed this suit, they proposed that a fairer procedure to decide real estate values might be to let the courts determine the price. A jury could be presented with the Corps' appraisal and the lower appraisal of the former landowner. Then that jury would determine the fair selling price. After considering the arguments of both sides, the Federal court on September 20, 1984, dismissed Waller's suit with prejudice (thus preventing the defendants from refileing at a future date). The court accepted the St. Louis District's contention that it had abided by the established intent of the law in its procedures for transfer of the land.²³ This decision reduced the possibility of others filing suits to challenge Corps disposal procedures in the future.

The public skepticism and distrust may not have disappeared by 1984, but much of the fire and enthusiasm that had characterized past opposition to Corps' policy had waned. There was no major public outcry against the land disposal policy. Corps critics apparently felt that the fight over the dam was won, and that this part of the deauthorization process was secondary. As exemplified by Waller and his group, there were disgruntled former owners, particularly those who saw their reacquisition price considerably escalated from the original price the Government had paid them. But, taking the former owners as a whole, there was a good deal of indifference. Many had no use for the land any more. Many had bought other property or had moved away. Many did not want to pay the asking price, some analyzing the real estate market in Missouri and concluding that prices in the state had peaked in the early 1980's and had begun to decline. They anticipated that this decline would continue. Some gambled that they could wait and acquire the property even cheaper in the future. Finally, with the demise of the project, a lot of interest in developing the area had disappeared, discouraging speculators who might have wanted the land for investment purposes. Ultimately, therefore, less than 2,400 acres were returned to the original owners. This was about 12 percent of the total land offered and involved only 18 percent of the former owners. The St. Louis District realized \$1.1 million from these

transactions. Reflecting the lukewarm interest, most of the property repurchased was in small parcels with moderate price tags, necessitating only moderate outlays of funds by the purchasers.²⁴

Three auctions of basin
property

When the former owners had exercised their option to buy, slightly more than 18,000 acres remained in Federal hands to be disposed of at auction. To facilitate an orderly process for offering the land, in March 1986, the St. Louis District contracted with Charles Pilmer Appraisals to develop a plan to prepare for land disposal. This firm in turn subcontracted with Turley Martin Company and Real Estate Analysts, an independent consulting firm, to prepare a marketing strategy for the disposition of remaining lands. The firm, among other things, was directed to evaluate the appraised value of the lands, given the depressed prices of rural lands in 1986, and to study how the tracts could be packaged to make them more attractive to prospective buyers. The study was also supposed to determine how many auctions should be held and how much real estate might best be offered at each. These factors were critical to the success of the land disposal. If too much land was put on the auction block at once, it could create a glut on the market and depress land prices in the region. If the land were not packaged wisely, no interest would be generated in the auction. When the District let this contract, officials anticipated that preparations would be completed by the spring of 1987 and that the first auction could be scheduled for the late fall of 1987 or the spring of 1988.²⁵

The District's forecast of how long the process would take proved conservative. The consultants presented their plan in the spring of 1987 and by April, the St. Louis District submitted a detailed auction plan. It outlined three auctions with a judicious choice of real estate to be offered in each. To make the land more appealing, tracts were combined or divided into new parcels for sale. To maintain interest among the public, each auction would offer some prime parcels along with poorer ones. In some cases, the minimum price of the land was reduced to take into consideration the depressed state of rural real estate. As W.B. Sandlin, Chief of the Real Estate Division for the St. Louis District, remarked to one reporter, because the rural real estate prices had fallen sharply since the land was initially offered to some of the original owners, it was possible that some could buy their old properties for less at auction than they could have repurchased them two years earlier.²⁶ Initially, the St. Louis District had been encumbered by the Federal law that had dictated that the land be offered to former owners at current market value. But now, in some respects, the plan was taking into consideration some of the factors that critics had raised in opposition to the Corps' policy of land resale to original owners.

The first auction was scheduled for June 27, 1987, in St. Clair, Missouri. Prior to that date, the District published information about the parcels being offered and provided brochures to interested buyers. An information office was established in St. Clair. The real estate office in the District fielded numerous calls for information from prospective bidders. Approximately 2000 people crowded into the high school gym on auction day. When the bidding was completed, the first phase of the disposal was deemed a success. In total, 60 parcels of nearly 4000 acres were initially offered. Fifty-two parcels, composed of over 3600 acres, were sold. The

TABLE 4.3

Land Disposal

| | Acres | Tracts | Acquisition Cost (\$) | Resale Price (\$) |
|-----------------------------|---------------------|-------------------------|--------------------------|---------------------------------|
| Acquired for Project | 25,697 | 591 | 11,393,912 | |
| Transferred to Missouri | 5,122 | 108 whole 15 partial | 2,800,000 (approx.) | None |
| To Former Owners | 2,349 | 94 | 1,400,000 (approx.) | 1,107,430 |
| Total | 7,471 | 202 whole 15 partial | 4,200,000 (approx.) | 1,107,430 |
| | Acres | Parcels ¹ | Acquisition Cost (\$) | Sale ² Price (\$) |
| Total For Auction | 18,222 ³ | 217 | 6,837,331 | 7,417,300 |
| First Auction | 3,654 | 52 | 1,386,946 | 1,418,100 |
| Second Auction | 7,676 | 80 | 2,825,752 | 3,024,250 |
| Third Auction | 6,892 | 85 | 2,624,633 | 2,974,950 |

¹ To make acreage more attractive for sale, tracts were divided and/or combined into new parcels prior to auction.

² Administrative and land disposal costs amounted to \$2,163,000 as of fiscal year 1987; \$419,000 was allocated for fiscal year 1988.

³ The acreage for auction was adjusted down from 18,226 acres (land acquired minus land transferred to Missouri and returned to former owners) because of a small cemetery in one area that could not be sold at auction, as well as a couple of other small discrepancies, such as a 1.75 acre tract of land that was primarily an embankment down to the river.

high bid amount was over \$1.4 million. (See Table 4.3 for figures on all the auctions.) The second auction, scheduled for October 17 at the same location, proved equally encouraging. About 1,200 eager bidders purchased 80 parcels of a little over 7,600 acres. The sale price topped \$3 million. A third and final auction completed the disposal. On June 11, 1988, 85 parcels of nearly 7,000 acres brought in nearly \$3 million.²⁷

The Corps had hoped to dispose of the land in a fair and equitable fashion while maximizing the net benefit to the nation. Corps officials believed the auctions accomplished this. In all, 217 parcels were sold. The initial value of this real estate (including improvements) had been nearly \$6.9 million. The auction returned over \$7.4 million, a seven percent increase over the acquisition price. In fact, the sale price of some of the parcels exceeded the current market value. While these figures exclude administrative and other costs associated with acquisition and disposal and do not take into account inflationary forces over the years, they still indicate a degree of success.²⁸

The response of the public also contrasted with the passion the Meramec issue had engendered earlier. There were still those landowners who felt they were being cheated out of land that was rightfully theirs because the price was too high. One farmer, for instance, lamented that "their [the Corps'] starting prices are my maximum. We're just getting blown out of the water." Resentment also persisted among citizens of some of the rural communities who feared being overwhelmed by urbanites, disrupting their way of life and culture. And to a degree, their fears were grounded in fact, since many St. Louis residents bought the land in quest of their own little piece of nature.

But the active opposition was a minority. State Representative Al Nilges, one of the legislators who had fought the land disposal process so vehemently, attended the first auction with what he described as mixed feelings. He still felt the dam was a good thing and could be justified, and he still had reservations about the way the Corps offered the land to the former owners, but he was happy to see the land finally getting back on the county tax rolls.²⁹

While passions had subsided, the Meramec project is destined to linger for years. Remnants of support periodically surface for retention of some of the other dams in the overall plan. By July of 1982, however, the Corps was prepared to deauthorize the other dams in the plan, with the exception of the Irondale Reservoir, which was kept in active status pending the outcome of extensive water supply studies. Colonel Dacey, District Engineer at the time, conceded that the dams were being abandoned less because of doubts about their potential effectiveness than because they lacked public support.³⁰

Still, floods occurred, and people continued to plead for help. In December 1982, floods reached record levels at Valley Park and other cities along the Meramec. The National Weather Service measured the highest river crests between Pacific and Arnold since records had been kept. An estimated 1,800 people were evacuated from their homes, and damage estimates ran as high as \$150 million.³¹

These floods evoked a renewed interest in the Meramec project. But Senators Eagleton and Danforth adamantly refused to reopen the discussions and instead sponsored legislation seeking an appropriation of \$800,000 to investigate alternative methods of flood control.³²

For its part, the Corps of Engineers in St. Louis followed through on the provisions of the deauthorization legislation, Section 2(h) of which earmarked up to \$20 million to investigate flood control measures. At a meeting in Arnold, Missouri, in June 1983, the Corps unveiled its plans. It omitted a reservoir and considered only alternatives, such as the purchase of flooded property, raising or moving affected structures, individual and general floodwalls and levees, buyout of property owners in flood plains, or enlarging bridge openings and channels. The Corps was also investigating a flood forecasting, evacuation, and warning system for areas susceptible to flooding.³³

As of 1987, Valley Park was targeted as the only area that had economic justification for flood control. There, the St. Louis District was pursuing levees and other improvements. Furthermore, the 1986 Water Resources Development Act, Public Law 99-662, Section 1128, provided \$330,000 for a flood forecasting and warning system; and the water supply study, with an appropriation of \$480,000, was expanded to a multipurpose basinwide study. Franklin County was added to St. Louis and Jefferson Counties as an area for this development.³⁴

Thus, nearly a half century after the controversial Meramec study had begun to take shape, the Meramec program was essentially dead. Despite the time and funds expended, the problems faced by residents of the Meramec Basin were still unresolved, and the future fate of the river basin was right back at the planning stages.

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4. U.S. Army Corps of Engineers, St. Louis District, Interim Report: Meramec Park Lake Disposal Project, Aug. 1985, District Historical Files; U.S. Army Corps of Engineers, St. Louis District, Interim Report: Acquisition Progress, Sept. 1987, *ibid.*; Meramec Park Lake, Realty Control File Summary, Sept. 30, 1987, *ibid.*

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6. "New Plan Being Offered to Deauthorize Meramec Dam," P-D, July 16, 1981.

7. Interview with Michael Dace, Feb. 15, 1985; "Corps Had Role in Position of Young on Meramec Dam," P-D, July 31, 1981; "Young Denies Being Influenced on Dam Project," G-D, August 1-2, 1981; "Army Accused of Politicking," P-D, Aug. 2, 1981.

8. *Ibid.*

9. Interview with Michael Dace, Feb. 15, 1985; "Corps Head Appeases Eagleton About Briefing Young on Dam," P-D, Aug. 6, 1981.

10. Public Law 97-128 (Dec 29, 1981), *Army Corps of Engineers: Deauthorization of Projects*; "Young Backs Meramec Deauthorization," P-D, Oct. 21, 1981; "Congress Set to Kill Off Meramec Dam," P-D, Nov. 24, 1981; "Congress Passes Bill to Kill Meramec Dam," P-D, Dec. 17, 1981; "Reagan's Pen Kills Meramec Dam Project," P-D, Dec. 30, 1981.

11. Memorandum, Meramec Land Transfer to Missouri, by Clyde Wilkes, Chief, Public Affairs Office, District Historical Files.

12. Interview with Colonel Gary Beech, July 11, 1985; interview with Robert Muffler, May 20, 1987.

13. Colonel Robert J. Dacey To Commander, Lower Mississippi Valley Division, Oct. 29, 1981, District Historical Files; Final totals were \$11,348,457 in fee, \$439,923 in easements, Meramec Park Lake, Realty Control File Summary, Sept. 30, 1987.

14. "Takeover Plan for Meramec Dam Area Irks Some State Legislators," *G-D*, Jan. 12, 1982; "What Will Happen to the Meramec Dam Land?," *G-D*, Jan. 23-24, 1982.

15. Colonel Robert Dacey to Christopher S. Bond, Apr. 22, 1982, District Historical Files.

16. "What Will Happen to the Meramec Dam Land?," *G-D*, Jan. 23-24 1982; "Citizens Won't Give 1 Inch on Meramec Land," *G-D*, Jan. 26, 1982; "State to Trim Land Plan," *P-D*, Jan. 31, 1982; "House Advances 600-Foot Meramec Corridor Accord," *P-D*, Mar. 9, 1982.

17. "Compromise Plan on Meramec Land," *P-D*, Mar. 3, 1982; "House Advances 600-Foot Meramec Corridor Accord," *P-D*, Mar. 9, 1982; "Meramec Land Bill Passes Legislature," *G-D*, Apr. 21, 1982; "Bond Gets Bill for Return of Meramec Dam Acreage," *P-D*, Apr. 20, 1982. Ultimately, the state disposed of more than the amount of land originally considered; 825.5 acres were sold back to former owners, and 1,533.57 acres were sold at auction. John Waller and the Meramec Basin Landowners Association expressed dissatisfaction with the state of Missouri disposal procedure, as well as that of the St. Louis District.

18. Memorandum, Meramec Land Transfer to Missouri, by Clyde Wilkes, Chief, Public Affairs Office, District Historical Files; "State Gets Deed to 5,122 Acres in Meramec Area," *P-D*, Oct. 19, 1983.

19. Letter from Colonel Gary Beech to Representative Burlison published in "Meramec Lands Offered at Prices 50% Below and Above Purchase Prices," *Independent Journal*, Dec. 15, 1983.

20. "Corps Accused of Unfair Appraisals in Buy-Backs," *Cuba Free Press*, Dec. 8, 1983; "Corps Sets Meramec Prices," *Rolla Daily News*, Dec. 2, 1983. By October 1984, the state had disposed of 50 of 70 tracts offered. Only two former owners had rejected offers outright; *St. Clair Chronicle*, Oct. 17, 1984.

21. "Plans Laid for \$100 Million Class Action Suit Against President and U.S. Government," *Sullivan Tri-County News*, May 14-15, 1977.

22. "Landowners Decide on Suit to bring Down Land Prices," *ibid.*, Feb. 1, 1984.

23. Order and Memorandum, *John and Esther Waller, et. al., v. The United States of America*, Sept. 21, 1984, No. 84-962C(C), U.S. District Court, Eastern District of Missouri, District Historical Files.

24. U.S. Army Corps of Engineers, St. Louis District, Fact Sheet: Meramec Park Lake Disposal Project, Nov. 9, 1987, *ibid*; U.S. Army Corps of Engineers, St. Louis District, Interim Report: Meramec Park Lake Disposal Project, Aug. 1985, *ibid*.

25. Interim Report: Meramec Park Lake Disposal Project, Aug. 1985, *ibid*; Fact Sheet: Meramec Park Lake Disposal Project, Nov. 9, 1987, *ibid*; U.S. Army Corps of Engineers, St. Louis District, Fact Sheet: Meramec Park Lake Real Property Disposal Program, Mar. 21, 1986, *ibid*; "Scuttled Dam Leaves 18,000 Acres for Sale," *P-D*, Sept. 14, 1986; interview with Colonel Daniel Wilson, Nov. 13, 1987. In addition to the acreage to be auctioned, the Federal government held title to approximately 2,100 acres of flowage easements that the Corps scheduled for release to former owners or their heirs at no cost.

26. Fact Sheet: Meramec Park Lake Disposal Project, Nov. 9, 1987, District Historical Files; "Corps of Engineers to Auction Property from Meramec Dam," *P-D*, June 25, 1987.

27. Auction After-Action Report, December, 1988, District Historical Files; "Meramec Land 'Going Back to Families' — and Assessor," *P-D*, June 28, 1987; "Meramec Project Land Slated for Auction," *ibid*, Sept. 13, 1987; "Meramec Park Auction Brings in \$3 Million," *ibid.*, Oct. 22, 1987; "Auction Set for Dam Land," *ibid.*, May 27, 1988; "Group Plans Commune on Meramec Land," *ibid*, June 12, 1988.

28. Auction After-Action Report, Dec. 1988, District Historical Files; interview with Colonel Daniel Wilson, Nov. 13, 1987. By the end of fiscal year 1987, administrative costs amounted to \$2,162,000; \$419,000 was allotted for fiscal year 1988.

29. "Meramec Land 'Going Back to Families' — and Assessor," *P-D*, June 28, 1987; interview with Colonel Daniel Wilson, Nov. 13, 1987. Colonel Wilson affirmed that from his observation it was clear that much of the land was being bought by city-dwellers for such diverse purposes as country retreats, tree farms, and even a "fat farm." But he predicted that the concerns of the rural people would subside once they saw what use would be made of the land. He also commented on the diminution of dissent surrounding the Corps' actions.

30. St. Louis District, U.S. Army Corps of Engineers, Pine Ford Reevaluation/Presidential Summary Report (Draft), July 1982, District Historical Files; interview with Colonel Robert Dacey, July 23, 1982; "Corps Favors Deauthorizing Three Dams," *P-D*, June 15, 1982; "U.S. Corps of Engineers to Urge End to 3 Meramec Basin Dams," *G-D*, June 15, 1982.

31. See, for example, "Record Flooding Leaves Devastation," *P-D*, Dec. 8, 1982; "Bring-Back-Dam Idea Applauded, Avoided in Meramec Flood Area," *G-D*, Dec. 15, 1982.

32. "Bring-Back-Dam Idea Applauded, Avoided in Meramec Flood Area"; "Eagleton, Danforth to Seek Money for Flood Control," *G-D*, Dec. 15, 1982.

33. "Army Corps Will Look at Flood Prevention on the Meramec," *Press-Journal*, June 15, 1983.

34. "Four Area Projects Favored," *P-D*, Oct. 19, 1986; Public Law 99-662, *Water Resources Development Act of 1986*, Section 1128. The flood forecasting and warning system as yet had not been recommended for implementation due to lack of a local sponsor.

Conclusion

The evolution of the Meramec Basin project and the controversy surrounding it compose a complex set of issues and circumstances, often distorted when the disputes, successes, and failures are oversimplified. Protagonists had different perspectives and quite often contrasting criteria for evaluating the need for and validity of the plans. None of the groups — not the environmentalists, the Corps of Engineers, the politicians, or, for that matter, the public at large — had the final, indisputable answer to Meramec Basin problems. In many cases, the debate represented conflicting values. The tradeoffs required to resolve the conflicting natural resource issues, for example, could only occur in an environment of value consensus, which obviously did not exist in this situation.

All of the concerned individuals and groups agreed that steps were needed to alleviate flood damage, particularly in the lower reaches of the Meramec, and that the rural regions of the basin needed economic stimulus. Furthermore, all recognized the growing demand for recreational outlets for the expanding St. Louis region, although they often disagreed on the form these outlets should take. They later increasingly emphasized the question of water supply, cheap hydroelectric power, and the numerous environmental concerns about the preservation of natural resources, including endangered species. Yet, various groups evaluated and emphasized problems differently. Often the enthusiasm of the interested groups ebbed and flowed depending upon circumstances. For instance, the demand for flood control was most urgent just after major floods. At other times, the drive lost momentum. The Federal government's laborious planning process proved incapable of responding with broadly acceptable solutions in time to address the problem. When the solution was ready, the problem no longer held the urgency that initially prompted people to turn to Government experts for help.

Victim of urban-rural
crunch

The Meramec Basin was a victim of an urban-rural crunch. The Meramec flowed through the rural regions of Missouri, but it converged with the Mississippi River near St. Louis, a growing, sprawling industrialized region. Solutions to urban needs were not always consonant with solutions to rural needs. Yet the needs of one could not be adequately addressed without consideration of the other. Furthermore, the needs of the whole Meramec Basin, had to be perceived in a broader context, such as their influence on the Mississippi River, thus diluting the importance of that region specifically. For instance, during the 1940's, the primary focus of the St. Louis District's planning for the basin was less on the Meramec River region and more on how the Meramec's development would influence navigation on the Mississippi River. Later, in the 1960's, the problem of the Meramec had to be considered in the broader context of how it would affect the whole St. Louis metropolitan area, part of which was outside the Meramec Basin. In fact, as this study has shown, the

recreation needs of this growing metropolitan area steadily became a major priority in the 1960's, at the same time that recreation was becoming a priority at the national level. The Federal Water Project Recreation Act of 1965 required that recreation and fish and wildlife development be part of water planning, thus legitimizing the pursuit of a reservoir for recreational purposes. The St. Louis District, responding to a perceived public need in its multipurpose planning, assigned recreation a prominent place in its cost-benefit estimations. In the 1970's, as the controversy over the construction of the dam reached a peak, again it was not just the people in the region who decided the fate of the project. A push for a statewide referendum was defeated, but St. Louis city and county were included in the referendum. This divergence of interests and the fact that the Meramec Basin had influence beyond its relatively small size posed constant problems.

Another factor that plagued the Meramec project and ultimately played a major role in its demise was the fact that from conceptualization to authorization, from planning to (uninitiated) construction, the project traversed a historical course of a drastically changing America. The nation's interests and outlook when the plan was initially conceived contrasted sharply with the America when the first dirt to prepare for the dam's construction was turned and when the court cases examined the project's legality. This phenomenon was well-expressed by Lieutenant General J.W. Morris, the Chief of Engineers, who wrote to H. Dennis Moore, the publisher of the *St. Clair Chronicle*, in the wake of the so-called "Meramec Shoot-out" in 1977. Morris declared:

With the enactment of the National Environmental Policy Act on New Year's Day of 1970, we entered a new era in water resource management, an era of the environmental imperative. Unfortunately, many projects fully justified and authorized by Congress before 1970 under a different set of criteria have been caught in transition. For seven years we have spent much time and energy defending those decisions before the Congressional committees, at public meetings and in the courts. Wouldn't it be great if, through the current re-analysis, we could resolve the controversies associated with yesterday's decisions and henceforth use all our personnel and financial resources to solve tomorrow's problems!¹

Morris's remarks refer to the particular changes that had occurred by the 1970's, but the same situation in different guises haunted the project from the outset. Conceived in the hectic days of the New Deal, it was slowed by World War II and then pushed forward, if less enthusiastically, after the war, only to be derailed during the complacency of the 1950's. Revived in the 1960's as John Kennedy's mystique and Lyndon Johnson's Great Society touted expansion and growth, it was slowed by the pressures of the Vietnam War and the attendant economic problems late in that decade. It was also overwhelmed by the environmental movement, which inspired a determined and aggressive following in those years. What was consistent with law and needs in one era became a problem later. It seemed an unresolvable dilemma.

The complex of interests opposing and supporting the project, which inevitably accompanies planning in a democracy, posed a further roadblock to the successful implementation of a program. The opposing interests of the

rural and urban constituencies within the basin have already been mentioned. Yet, there were even splits within these constituencies, reflected partially in the outcome of the 1979 referendum. Some rural residents were intent upon preserving their rural way of life, while others looked worriedly at the gloomy economic situation and saw their only salvation in a project that would bring an infusion of jobs and tourists. This was above and beyond those who stood to gain or lose by the sale of land. Among urbanites, some promoted the project as a means of attracting new business and industry even as others idealistically lamented the potential destruction of the environment. Recreationists, too, presented a contrast. Some wanted the flatwater activities a reservoir could provide, such as power boating; others wanted to preserve the free-flowing streams which were conducive to canoeing, hiking, and general communing with nature.

Conflicting values of engineers and environmentalists

This led to the key conflict of views, that between the engineers and the environmentalists. Both agreed on the necessity of addressing the flood problem and the unquestionable expanding demand for recreation. How to address these issues and at what cost placed the two at odds. The Corps of Engineers, in its exhaustive studies, had concluded that the answer lay in a series of dams and reservoirs, the first one being at Meramec State Park. The planners in the St. Louis District, supported by other interested parties, argued, using what they considered substantial proof, that this would reduce flood damage, provide recreation, infuse economic life into the area, and produce other beneficial results. Their data and research presented a strong case for their position. The environmentalists, led by the Sierra Club, contended that flood damage could be reduced by less drastic measures than a reservoir and that the preservation of a free-flowing stream would continue to provide a recreational outlet that did not conflict with the natural state of the river. Besides the data this group could muster to reinforce its case, it had an emotional appeal that grew stronger as the controversy evolved.

At the heart of the matter were diametrically opposed values. On the one hand, the Corps of Engineers and its supporters made a convincing case that dams and reservoirs were economically cost-effective, would relieve much of the region's hardships, and would promote progress. Although they admitted that reservoirs would impact on the environment, they argued that the tradeoff was justified and beneficial and warned against overstating the environmental damage. The environmentalists, on the other hand, zealously endeavored to protect the natural state of the river. They could not be convinced by arguments of cost-effectiveness, nor did they agree that providing reservoirs promoted human progress. To them, disrupting the natural state of the river would deny a national treasure to future generations. These contrasting values made a conflict almost inevitable. As the former District Engineer, Leon McKinney, declared in criticizing the Carter administration's stance on the Meramec project, economically the Meramec project continued to be a good project even in the inflationary days of the late 1970's; but Carter's priorities were not simply economic.² Whether he realized it or not, McKinney was getting to the heart of the conflict.

Corps as visible
agent of Federal
Government

Turning to the Corps of Engineers in particular, as an agent of the Executive Branch, the Corps, especially the St. Louis District, bore the brunt of the criticism, although in many cases it was just following the dictates established by Congress. Acting as the planning and construction agent of the Government created problems. First, supporting the project and providing data to justify its plans could easily be construed as lobbying for it. This emerged most obviously in the controversy that resulted when Colonel Robert Dacey briefed Congressman Robert Young, prompting a scathing response from Senator Eagleton. Lieutenant General Joseph K. Bratton, the Chief of Engineers at that time, pointed out in the wake of that controversy that the Corps had to take pains not only to be neutral, but also to make sure that it did not give the wrong impression.³ On this occasion, the Corps, responding to the requests of elected officials, found itself in an uncomfortable position. This had also occurred in the past at numerous public meetings where the Corps, in defending its data, left some with the impression that it was an advocate rather than simply providing the information to make an informed judgment. The agency was placed in the untenable position of having information that should be made available for informed public decision making, but being restrained from releasing that information if it did not support the administration's position.

Politics doomed the
Meramec Reservoir

Despite all these complicating factors, it was politics that ultimately doomed the Meramec project. The Congress of the United States appropriated the money and authorized the projects for the Corps of Engineers. Congressmen responded to the wishes of their constituents, and like everything else, their wishes changed over time. Whether rightly or wrongly, the public perception of the Meramec project had changed by the 1970's. With the new economic situation and the active and outspoken opposition of environmental groups, the Meramec was no longer an obscure project of interest to only a few Missourians. New political figures were unconvinced of the need for the project or were wary of how support for it would impact on their political fortunes. Old supporters, in many cases, were not willing to risk their political futures even if they might still believe a reservoir was a viable solution, for public opinion had shifted. Whether one sees the Meramec Basin plan as beneficial or detrimental, one still might be uneasy with the realization that its final fate was not determined by a dispassionate evaluation of the evidence on both sides, but rather by an emotional political struggle.

Although the project has been deauthorized, the Meramec story has not ended. The river continues to be a problem — witness the December 1982 floods, which broke records dating back to 1915.⁴ Once again Congress acted, authorizing money for the Corps to study means of flood control, but discouraged reservoirs as a potential solution.⁵ There were still those who lamented the demise of the Meramec project in light of these floods. Guy Jester, former District Engineer, calculated that the Meramec Dam, had it been built, would have reduced the 1982 flood levels by 40 percent and flood damages by more than 50 percent.⁶ Although these floods once again revived interest in the Meramec Dam, nothing concrete materialized. The St. Louis District had to pursue other avenues to solve the continuing problems in the Meramec Basin.⁷

Notes-Conclusion

1. J.W. Morris, Chief of Engineers, to H. Dennis Moore, Publisher, *St. Clair Chronicle*, Apr. 13, 1977.

2. "Meramec Dam Data Suppressed, Ex-Official Says," *St. Louis Globe-Democrat*, Dec. 18-19, 1982 (hereinafter cited as *G-D*).

3. "Corps Head Appeases Eagleton About Briefing Young on Dam," *St. Louis Post-Dispatch*, Aug. 6, 1981 (hereinafter cited as *P-D*).

4. "Record Flooding Leaves Devastation," *ibid*, Dec. 8, 1982.

5. "Eagleton, Danforth to Seek Money for Flood Control," *G-D*, Dec. 15, 1982.

6. "Meramec Dam Data Suppressed, Ex-Official Says," *ibid*, Dec. 18-19, 1982.

7. "Floods Revive Talk of Building Meramec Dam," *ibid*, Dec. 11-12, 1982; "Bring-Back-Dam Idea Applauded, Avoided in Meramec Flood Area," *ibid*, Dec. 15, 1982.

Note on Sources

Other than newspapers and journalistic accounts, there has not been a great deal of work produced pertaining directly to the Meramec Basin controversy. When such published works are used in this study, they are cited in full in the footnotes. The bulk of the relevant published works have been reports and studies emanating primarily from the Federal government and the St. Louis District, Corps of Engineers, with a few additional state and local investigations included. These too are cited in the footnotes.

Two works, however, provide considerable perspective for an examination of the Meramec controversy and are deserving of particular mention. Edward E. Middleton, "Interagency Coordination—The Evolution of Comprehensive Integrated Planning in the Army Corps of Engineers" (Ph.D. dissertation, Indiana University, 1985), is a valuable starting point. As its title suggests, it is not exclusively concerned with the Meramec Basin, but the Meramec project is one of the major case studies the author utilizes in his investigation of interagency planning. *A Meramec Chronology*, published by the St. Louis District, Corps of Engineers (St. Louis, 1984), is the other essential work. Its year-by-year compilation of newspaper references, Government documents, and other materials is an invaluable guide to the Meramec issues from beginning to end.

The bulk of this study was based on archival sources. Chapter One, "The Background," which deals with early planning up to 1950, was based in part on St. Louis District records, Record Group 77, now housed in the National Archives Depository in Kansas City, Missouri. This material comprises primarily draft reports and correspondence dealing with the cooperative field investigation during and after World War II. There is also a limited amount of Meramec River material in Record Group 77 at Suitland, Maryland. These papers cover Meramec development from 1923 to 1942, including the pre-World War II studies and plans. The papers of Howard L. Cook in the Office of History, Fort Belvoir, Virginia, contain material pertaining to the early planning for Meramec Basin development.

By far, the most important source for this investigation covering the 1920's to the 1980's is the historical files of the St. Louis District. Owing to the foresight of some Corps employees who realized the historical significance of the materials pertaining to the Meramec issue, particularly Michael Dace, who himself was involved in the controversy during its latter stages, a very good documentary account of the evolution of the project has been preserved. The historical files contain a wealth of materials including newspaper clippings from St. Louis and rural newspapers, numerous reports generated in the course of the planning, files on various Meramec project court cases, correspondence by Corps personnel

and others concerned with the project, and oral history interviews. These records provide insight into the views of those who opposed as well as those who supported the Meramec project. Since much of this material has only recently been acquired by the District historical office, only a small portion of it has been accessioned and properly filed. Nevertheless, all of the material has been consulted in this study and will be preserved for future historical investigations.

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